SEQUENCE LISTING

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<110> Lodes, Michael J.
      Mohamath, Raodoh
      Henderson, Robert A.
      Benson, Darin R.
      Secrist, Heather

<120> COMPOSITIONS AND METHODS FOR
THE THERAPY AND DIAGNOSIS OF LUNG CANCER

<130> 210121.475C10

<140> US
<141> 2001-05-11

<160> 735

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<213> Homo sapien

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ragtggcctg tccatcagca tgtttctcat ctactttgct tgtccagtcc actgtggtcc    240
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stttcagraa cctttgarc atcctctttt ttccgtrtcc cggmaargcc cytttccckg     540
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      <213> Homo sapien

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taaaatnggt cctcctwaaa aaagttcggc tggggcccgk tggctcacat tttkttaycc     540
cyccccсttt tggggarggc caarggccgg kttgawtnnc ccttgagggg ccanaactcc     600
agnaaccrgn cccgggccar smgwkgkstr armccctttc cyyccmaraa aawwcsmaaa     660
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      <210> 5
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<211> 679
<212> DNA
<213> Homo sapien

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cagagggttc tgcaggatgt gctattttaa agcagctggg tgcaacttgt gaaaacggga     180
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tatttgaggc tctaccaggc ctgtctacag gacagcttca tcgaagggac atttttaac      300
ctgttatttt anatnccaca tatnttttt aatgctnaag catacaggtt gaatttctgg      360
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tgtttcnagg gggcntgggg ggtttaaaaa aatgtttctn ttnccntaaa aatgtttacc     600
cnnctattga aaaaatgggg gtcgnggggg gcttnaaatc cccnanttnt gaatnttnta     660
tccggaanct tggtttccc                                                  679

<210> 6
<211> 369
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(369)
<223> n = A,T,C or G

<400> 6
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aattcattaa ctttgtggtt gaagggagca gcgtcngaaa ctgctttagc acagtgggag     180
gaaaacaaac agattcatct ccggaaacca aaggaaaggg tragtgggtt tttattagcc     240
agctgtatcc tagatggtca atttccagtg gatgaataca ccttacgtac gtttctcttg     300
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ctggactga                                                             369

<210> 7
<211> 264
<212> DNA
<213> Homo sapien

<220>
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<222> (1)...(264)
<223> n = A,T,C or G

<400> 7
tgctggatra gggatggggc acgggagcac agatmgactt taactgcccc cacgttntcm      60
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aggaaaggat tacaggcgtg agccactgcg cccggcctct tctccacttt cataggttcc 120
agtctctggt tcttctttct cagtttgttg tttttgcttc ttaaatmatg gagatnagaa 180
tgaacactac actcggaatc aggaagccct gcctggcgcc tctgtcacct gtctaggggc 240
ttcttctcac tgagtcatcc agca 264

<210> 8
<211> 280
<212> DNA
<213> Homo sapien

<220>
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<222> (1)...(280)
<223> n = A,T,C or G

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accgccccna ttaagaatta gagcaagcag tgaggtgaag ccttgtcctt gcttttaaca 180
tagaaagtga tccaaattca ccaaacttga cttnnggttt tgcagtgtgg cctcctgatt 240
ctagacnctg gcgaaacatt tgatgggcaa aaaaaaaaaa 280

<210> 9
<211> 449
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(449)
<223> n = A,T,C or G

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ggttccctgt ctcccatggg cgtcatttca tgttgtcctc tgccttcccc cagatattct 180
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ggtacgggag gaaacactgg gctnacccag atnctggact tgagtcttgc ctctgctgct 300
tgctgcacag cttctgtcat ggtgctaaac ctgtgacctg cctcacaggc ttagagcatg 360
cccgtagaag tactctnaac taaratgctt tccacaaatg agatggtttc atgaaaactt 420
caaatagagg gcctgggcaa aaaaaaaaa 449

<210> 10
<211> 538
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(538)
<223> n = A,T,C or G

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atccgccggg atacatgcca cttggtttga taaatcaaaa tacagcatcc ttcagatccc 120
tttgctgagc aatacaatta tttgtatatg ttactttttt ttctgtttgg ctnaaagatt 180
tgatatgagc tgaggaaaat gaagccntta ctgctatnag atctnatccc tttccaccac 240
ctttcaggga tnttggcact gcayatattc agaattcccc nnagtcgctn gtgataaaaa 300
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gctcactact gtggatatgt atgtnttgac cgatnacaca ggctgattta gggaagagat 420
aaaagcacac ttngaattta ttagcctttc accnagacta anattctgaa attaagaatg 480
tattccttgg tcaacaattt tcctcttctc ttagccctct tacattgtan tggactga 538

<210> 11
<211> 543
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(543)
<223> n = A,T,C or G

<400> 11
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caaccctcgc catcccagca aatcccctct ctcccttctc atgggagtgc cttgtattca 120
tcaggcatct gggacttgat gtgggtntgg gatttgaaat cagagcacct nggtctctst 180
caccattctn tcacttatta gctctnacct tgggtnaata cctgccttag tgtcntaggt 240
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gggtaaaacc acagggtact ccgctcctcc naagaatgga gaatttttc tagaagccca 360
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ctaagaggna attctgaact catccccnna tgacctctcc cgaatmagaa tatctctggc 480
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aaa 543

<210> 12
<211> 329
<212> DNA
<213> Homo sapien

<400> 12
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ccttggcctc ccccctctgc agstacctct gaccaagaag gaaactagca agcctatgct 120
ggcaagacca taggtggggt gctgggaatc ctcggggccg gctggcaccc actcctggtg 180
ctcaagggag agacccactt gttcagatgc atrggcctca ggcggttcaa ggcrgtctta 240
gagccacaga gtcaaataaa aatcaatttt gagagaccac agcacctgct gctttgatcg 300
tgatgttcaa ggcaagttgc aagtcatcg 329

<210> 13
<211> 314
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(314)
<223> n = A,T,C or G

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      <400> 13
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gcgggagtgg agaccaccaa accctccaaa cagagcaaca actagtacgc ggccagcagc     120
tacctgagcc tgacgcccga gcagtggaag tcccacagaa gctacagctg ccaggtcacg     180
catgaaggga gcaccgtgga gaagacagtg gcccctacag aatgttcata ggttcccnac     240
tctnacccca cccacgggag cctgganctg cangatcccg gggaagggt ctctctcccc      300
atcccaagtc atcg                                                       314

      <210> 14
      <211> 691
      <212> DNA
      <213> Homo sapien

      <220>
      <221> misc_feature
      <222> (1)...(691)
      <223> n = A,T,C or G

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ttccagttca gtgctgctgg gtttttctta ctaaaccaaa acaatkaaga gcatagaagg     120
gaagagaaga ataaagtcta ttttggtctt tggtagcchg ggtaangaga atgctstcac     180
tctacnagaa aacccnaagt gaacccggct aatcaggacc gtgcttggga agggagcagg     240
ggcattacct ttcaacacca gaggttcttt gccttctctc tgcagggact cgargactat     300
gtgaagtggc tgggarggca tcactcggct tggttcattg gtrttctcat cataaactat     360
natttctttg gaaaaagatc ctcttgaaag artccttgcc ttccctacag gaaatcaagt     420
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      <213> Homo sapien

      <220>
      <221> misc_feature
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      <223> n = A,T,C or G

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tcyaccctcg gctcttacct ttgacnaagt ctcccgttga gagtactacc gaaccaccag     180
cagttcgagc ctctnaagag cgtctaagcg atggggatat atatttactg gagaatgggc     240
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<223> n = A,T,C or G

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tgagagacag cgcatgctgg tgcagcgtan ggacgaactc ctccagcaag ctcgcagacg   120
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<211> 317
<212> DNA
<213> Homo sapien

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aaggataagc accagagaaa gaaggttcag ccggccgtcc tgaaatatta taaggtggat   120
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aaaaaaaaaa actcgag                                                  317

<210> 18
<211> 392
<212> DNA
<213> Homo sapien

<400> 18
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ttccggagaa gaagaagatg aaatatgttc cggacttcca gagaagagaa acaggagttc   300
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cggacatccc agagaagccc caagaccccc cg                                 392

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<211> 2624
<212> DNA
<213> Homo sapien

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tcttgggctg cccactgccg gatcctaata actattatca ccgacgtaat gagatgacca   180
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                                                                        300
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acccagggaa tcctttgccc cagatgttat catttgagat gctcttatgc agcctaagaa      2040
aatccatcct ctctggcccc aggggacaag ccaagctgct atgtacacac tcggtgttct      2100
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gaatgtgaga gctccaagtt ggccccaatc aggaggggag taatgatgaa catacagacg      2460
gccacatctt gccaatcaag catcatctga tgaaaaagaa agcaatctta ggattacctg      2520
ggacacgtca gtctgggaga ggtggttgaa tcattgtgta agggaatagt gtatctaatc      2580
tgtgttgatc ctgctgcctt gttgacctgg agagaatgaa acaaacaaac acataaacaa      2624
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<210> 20
<211> 488
<212> DNA
<213> Homo sapien

<400> 20                                                                 60
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      <213> Homo sapien

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      <213> Homo sapien

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      <212> DNA
      <213> Homo sapien

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      <210> 24
      <211> 1328
      <212> DNA
      <213> Homo sapien

      <400> 24
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      <210> 25
      <211> 1758
      <212> DNA
      <213> Homo sapien

      <400> 25
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<210> 26
<211> 493
<212> DNA
<213> Homo sapien

<400> 26
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<211> 1331
<212> DNA
<213> Homo sapien

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<210> 28
<211> 1333
<212> DNA
<213> Homo sapien

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<210> 29
<211> 813
<212> DNA
<213> Homo sapien

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      <212> DNA
      <213> Homo sapien

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      <210> 31
      <211> 1355
      <212> DNA
      <213> Homo sapien

      <400> 31
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      <211> 80
      <212> PRT
      <213> Homo sapien

      <400> 32
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Thr Thr Pro Lys Lys Asp Lys His Gln Arg Lys Lys Val Gln Pro Ala
            20                  25                  30
Val Leu Lys Tyr Tyr Lys Val Asp Glu Asn Gly Lys Ile Ser Cys Leu
        35                  40                  45
Arg Arg Glu Cys Pro Ser Asp Glu Cys Gly Ala Gly Val Phe Met Ala
    50                  55                  60
Ser His Phe Asp Arg His Tyr Cys Gly Lys Cys Cys Leu Thr His Cys
65                  70                  75                  80

      <210> 33
      <211> 130
      <212> PRT
      <213> Homo sapien

      <400> 33
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1               5                   10                  15
Leu Asp Ala Gln Glu His Val Lys Asn Pro Tyr Lys Gly Lys Lys Leu
            20                  25                  30
Lys Lys His Pro Asp Phe Pro Lys Lys Pro Leu Thr Pro Tyr Phe Arg
        35                  40                  45
Phe Phe Met Glu Lys Arg Ala Lys Tyr Ala Lys Leu His Pro Gln Met
    50                  55                  60
Ser Asn Leu Asp Leu Thr Lys Ile Leu Ser Lys Lys Tyr Lys Glu Leu
65                  70                  75                  80
Pro Glu Lys Lys Lys Met Lys Tyr Val Pro Asp Phe Gln Arg Arg Glu
                85                  90                  95
Thr Gly Val Arg Ala Lys Pro Gly Pro Ile Gln Gly Gly Ser Pro Pro
            100                 105                 110
```

```
Pro Tyr Pro Glu Cys Gln Glu Ser Asp Ile Pro Glu Lys Pro Gln Asp
        115                 120                 125

Pro Pro
    130

<210> 34
<211> 506
<212> PRT
<213> Homo sapien

<400> 34
Asn Ser Glu Lys Glu Ile Pro Val Leu Asn Glu Leu Pro Val Pro Met
1               5                   10                  15
Val Ala Arg Tyr Ile Arg Ile Asn Pro Gln Ser Trp Phe Asp Asn Gly
            20                  25                  30
Ser Ile Cys Met Arg Met Glu Ile Leu Gly Cys Pro Leu Pro Asp Pro
        35                  40                  45
Asn Asn Tyr Tyr His Arg Arg Asn Glu Met Thr Thr Thr Asp Asp Leu
    50                  55                  60
Asp Phe Lys His His Asn Tyr Lys Glu Met Arg Gln Leu Met Lys Val
65                  70                  75                  80
Val Asn Glu Met Cys Pro Asn Ile Thr Arg Ile Tyr Asn Ile Gly Lys
                85                  90                  95
Ser His Gln Gly Leu Lys Leu Tyr Ala Val Glu Ile Ser Asp His Pro
            100                 105                 110
Gly Glu His Glu Val Gly Glu Pro Glu Phe His Tyr Ile Ala Gly Ala
        115                 120                 125
His Gly Asn Glu Val Leu Gly Arg Glu Leu Leu Leu Leu Leu Leu His
    130                 135                 140
Phe Leu Cys Gln Glu Tyr Ser Ala Gln Asn Ala Arg Ile Val Arg Leu
145                 150                 155                 160
Val Glu Glu Thr Arg Ile His Ile Leu Pro Ser Leu Asn Pro Asp Gly
                165                 170                 175
Tyr Glu Lys Ala Tyr Glu Gly Gly Ser Glu Leu Gly Gly Trp Ser Leu
            180                 185                 190
Gly Arg Trp Thr His Asp Gly Ile Asp Ile Asn Asn Asn Phe Pro Asp
        195                 200                 205
Leu Asn Ser Leu Leu Trp Glu Ala Glu Asp Gln Gln Asn Ala Pro Arg
    210                 215                 220
Lys Val Pro Asn His Tyr Ile Ala Ile Pro Glu Trp Phe Leu Ser Glu
225                 230                 235                 240
Asn Ala Thr Val Ala Thr Glu Thr Arg Ala Val Ile Ala Trp Met Glu
                245                 250                 255
Lys Ile Pro Phe Val Leu Gly Gly Asn Leu Gln Gly Gly Glu Leu Val
            260                 265                 270
Val Ala Tyr Pro Tyr Asp Met Val Arg Ser Leu Trp Lys Thr Gln Glu
        275                 280                 285
His Thr Pro Thr Pro Asp Asp His Val Phe Arg Trp Leu Ala Tyr Ser
    290                 295                 300
Tyr Ala Ser Thr His Arg Leu Met Thr Asp Ala Arg Arg Arg Val Cys
305                 310                 315                 320
His Thr Glu Asp Phe Gln Lys Glu Glu Gly Thr Val Asn Gly Ala Ser
                325                 330                 335
Trp His Thr Val Ala Gly Ser Leu Asn Asp Phe Ser Tyr Leu His Thr
```

340 345 350

Asn Cys Phe Glu Leu Ser Ile Tyr Val Gly Cys Asp Lys Tyr Pro His
355 360 365

Glu Ser Glu Leu Pro Glu Glu Trp Glu Asn Asn Arg Glu Ser Leu Ile
370 375 380

Val Phe Met Glu Gln Val His Arg Gly Ile Lys Gly Ile Val Arg Asp
385 390 395 400

Leu Gln Gly Lys Gly Ile Ser Asn Ala Val Ile Ser Val Glu Gly Val
405 410 415

Asn His Asp Ile Arg Thr Ala Ser Asp Gly Asp Tyr Trp Arg Leu Leu
420 425 430

Asn Pro Gly Glu Tyr Val Val Thr Ala Lys Ala Glu Gly Phe Ile Thr
435 440 445

Ser Thr Lys Asn Cys Met Val Gly Tyr Asp Met Gly Ala Thr Arg Cys
450 455 460

Asp Phe Thr Leu Thr Lys Thr Asn Leu Ala Arg Ile Arg Glu Ile Met
465 470 475 480

Glu Thr Phe Gly Lys Gln Pro Val Ser Leu Pro Ser Arg Arg Leu Lys
485 490 495

Leu Arg Gly Arg Lys Arg Arg Gln Arg Gly
500 505

<210> 35
<211> 96
<212> PRT
<213> Homo sapien

<400> 35

Met Asn Gly Glu Ala Asp Cys Pro Thr Asp Leu Glu Met Ala Ala Pro
1 5 10 15

Arg Gly Gln Asp Arg Trp Ser Gln Glu Asp Met Leu Thr Leu Leu Glu
20 25 30

Cys Met Lys Asn Asn Leu Pro Ser Asn Asp Ser Ser Gln Phe Lys Thr
35 40 45

Thr Gln Thr His Met Asp Arg Glu Lys Val Ala Leu Lys Asp Phe Ser
50 55 60

Gly Asp Met Cys Lys Leu Lys Trp Val Glu Ile Ser Asn Glu Val Arg
65 70 75 80

Lys Phe Arg Thr Leu Thr Glu Leu Ile Leu Asp Thr Gln Glu His Val
85 90 95

<210> 36
<211> 129
<212> PRT
<213> Homo sapien

<400> 36

Gly Ile Val Val Phe Ser Leu Gly Ser Met Val Ser Glu Ile Pro Glu
1 5 10 15

Lys Lys Ala Val Ala Ile Ala Asp Ala Leu Gly Lys Ile Pro Gln Thr
20 25 30

Val Leu Trp Arg Tyr Thr Gly Thr Arg Pro Ser Asn Leu Ala Asn Asn
35 40 45

Thr Ile Leu Val Gln Trp Leu Pro Gln Asn Asp Leu Leu Gly His Pro

```
        50                  55                  60
Met Thr Arg Ala Phe Ile Thr His Ala Ser Ser His Gly Val Asn Glu
65                  70                  75                  80
Ser Ile Cys Asn Gly Val Pro Met Val Met Ile Pro Leu Phe Gly Asp
                85                  90                  95
Gln Met Asp Asn Ala Lys Arg Arg Glu Thr Lys Gly Ala Gly Val Thr
            100                 105                 110
Leu Asn Val Leu Glu Met Thr Ser Glu Asp Leu Glu Asp Ala Leu Lys
        115                 120                 125
Ser
```

```
<210> 37
<211> 238
<212> PRT
<213> Homo sapien

<400> 37
Asn Leu Leu Gly Ile Ser Trp Val Asp Ser Ser Trp Ile Pro Ile Leu
1               5                   10                  15
Asn Ser Gly Ser Val Leu Asp Tyr Phe Ser Glu Arg Ser Asn Pro Phe
            20                  25                  30
Tyr Asp Arg Thr Cys Asn Asn Glu Val Val Lys Met Gln Arg Leu Thr
        35                  40                  45
Leu Glu His Leu Asn Gln Met Val Gly Ile Glu Tyr Ile Leu Leu His
    50                  55                  60
Ala Gln Glu Pro Ile Leu Phe Ile Ile Arg Lys Gln Gln Arg Gln Ser
65                  70                  75                  80
Pro Ala Gln Val Ile Pro Leu Ala Asp Tyr Tyr Ile Ile Ala Gly Val
                85                  90                  95
Ile Tyr Gln Ala Pro Asp Leu Gly Ser Val Ile Asn Ser Arg Val Leu
            100                 105                 110
Thr Ala Val His Gly Ile Gln Ser Ala Phe Asp Glu Ala Met Ser Tyr
        115                 120                 125
Cys Arg Tyr His Pro Ser Lys Gly Tyr Trp Trp His Phe Lys Asp His
    130                 135                 140
Glu Glu Gln Asp Lys Val Arg Pro Lys Ala Lys Arg Lys Glu Glu Pro
145                 150                 155                 160
Ser Ser Ile Phe Gln Arg Gln Arg Val Asp Ala Leu Leu Leu Asp Leu
                165                 170                 175
Arg Gln Lys Phe Pro Pro Lys Phe Val Gln Leu Lys Pro Gly Glu Lys
            180                 185                 190
Pro Val Pro Val Asp Gln Thr Lys Lys Glu Ala Glu Pro Ile Pro Glu
        195                 200                 205
Thr Val Lys Pro Glu Glu Lys Glu Thr Thr Lys Asn Val Gln Gln Thr
    210                 215                 220
Val Ser Ala Lys Gly Pro Pro Glu Lys Arg Met Arg Leu Gln
225                 230                 235
```

```
<210> 38
<211> 202
<212> PRT
<213> Homo sapien
```

<400> 38
Lys Gly Ser Glu Gly Glu Asn Pro Leu Thr Val Pro Gly Arg Glu Lys
1   5   10   15
Glu Gly Met Leu Met Gly Val Lys Pro Gly Glu Asp Ala Ser Gly Pro
            20   25   30
Ala Glu Asp Leu Val Arg Arg Ser Glu Lys Asp Thr Ala Ala Val Val
        35   40   45
Ser Arg Gln Gly Ser Ser Leu Asn Leu Phe Glu Asp Val Gln Ile Thr
    50   55   60
Glu Pro Glu Ala Glu Pro Glu Ser Lys Ser Glu Pro Arg Pro Pro Ile
65   70   75   80
Ser Ser Pro Arg Ala Pro Gln Thr Arg Ala Val Lys Pro Arg Leu His
                85   90   95
Pro Val Lys Pro Met Asn Ala Thr Ala Thr Lys Val Ala Asn Cys Ser
            100   105   110
Leu Gly Thr Ala Thr Ile Ile Gly Glu Asn Leu Asn Asn Glu Val Met
        115   120   125
Met Lys Lys Tyr Ser Pro Ser Asp Pro Ala Phe Ala Tyr Ala Gln Leu
    130   135   140
Thr His Asp Glu Leu Ile Gln Leu Val Leu Lys Gln Lys Glu Thr Ile
145   150   155   160
Ser Lys Lys Glu Phe Gln Val Arg Glu Leu Glu Asp Tyr Ile Asp Asn
                165   170   175
Leu Leu Val Arg Val Met Glu Glu Thr Pro Asn Ile Leu Arg Ile Pro
            180   185   190
Thr Gln Val Gly Lys Lys Ala Gly Lys Met
        195   200

<210> 39
<211> 243
<212> PRT
<213> Homo sapien

<400> 39
Val Asn Ala Leu Gly Ile Met Ala Ala Val Asp Ile Arg Asp Asn Leu
1   5   10   15
Leu Gly Ile Ser Trp Val Asp Ser Ser Trp Ile Pro Ile Leu Asn Ser
            20   25   30
Gly Ser Val Leu Asp Tyr Phe Ser Glu Arg Ser Asn Pro Phe Tyr Asp
        35   40   45
Arg Thr Cys Asn Asn Glu Val Val Lys Met Gln Arg Leu Thr Leu Glu
    50   55   60
His Leu Asn Gln Met Val Gly Ile Glu Tyr Ile Leu Leu His Ala Gln
65   70   75   80
Glu Pro Ile Leu Phe Ile Ile Arg Lys Gln Gln Arg Gln Ser Pro Ala
                85   90   95
Gln Val Ile Pro Leu Ala Asp Tyr Tyr Ile Ile Ala Gly Val Ile Tyr
            100   105   110
Gln Ala Pro Asp Leu Gly Ser Val Ile Asn Ser Arg Val Leu Thr Ala
        115   120   125
Val His Gly Ile Gln Ser Ala Phe Asp Glu Ala Met Ser Tyr Cys Arg
    130   135   140
Tyr His Pro Ser Lys Gly Tyr Trp Trp His Phe Lys Asp His Glu Glu
145   150   155   160

```
Gln Asp Lys Val Arg Pro Lys Ala Lys Arg Lys Glu Glu Pro Ser Ser
                165                 170                 175
Ile Phe Gln Arg Gln Arg Val Asp Ala Leu Leu Leu Asp Leu Arg Gln
            180                 185                 190
Lys Ile Ser Thr Gln Ile Cys Ala Val Asp Gln Thr Lys Lys Glu Ala
        195                 200                 205
Glu Pro Ile Pro Glu Thr Val Lys Pro Glu Glu Lys Glu Thr Thr Lys
    210                 215                 220
Asn Val Gln Gln Thr Val Ser Ala Lys Gly Pro Pro Glu Lys Arg Met
225                 230                 235                 240
Arg Leu Gln


    <210> 40
    <211> 245
    <212> PRT
    <213> Homo sapien

    <400> 40
Ala Ala Val Asp Ile Arg Asp Asn Leu Leu Gly Ile Ser Trp Val Asp
1               5                   10                  15
Ser Ser Trp Ile Pro Ile Leu Asn Ser Gly Ser Val Leu Asp Tyr Phe
            20                  25                  30
Ser Glu Arg Ser Asn Pro Phe Tyr Asp Arg Thr Cys Asn Asn Glu Val
        35                  40                  45
Val Lys Met Gln Arg Leu Thr Leu Glu His Leu Asn Gln Met Val Gly
    50                  55                  60
Ile Glu Tyr Ile Leu Leu His Ala Gln Glu Pro Ile Leu Phe Ile Ile
65                  70                  75                  80
Arg Lys Gln Gln Arg Gln Ser Pro Ala Gln Val Ile Pro Leu Ala Asp
                85                  90                  95
Tyr Tyr Ile Ile Ala Gly Val Ile Tyr Gln Ala Pro Asp Leu Gly Ser
            100                 105                 110
Val Ile Asn Ser Arg Val Leu Thr Ala Val His Gly Ile Gln Ser Ala
        115                 120                 125
Phe Asp Glu Ala Met Ser Tyr Cys Arg Tyr His Pro Ser Lys Gly Tyr
    130                 135                 140
Trp Trp His Phe Lys Asp His Glu Glu Gln Asp Lys Val Arg Pro Lys
145                 150                 155                 160
Ala Lys Arg Lys Glu Glu Pro Ser Ser Ile Phe Gln Arg Gln Arg Val
                165                 170                 175
Asp Ala Leu Leu Leu Asp Leu Arg Gln Lys Phe Pro Pro Lys Phe Val
            180                 185                 190
Gln Leu Lys Pro Gly Glu Lys Pro Val Pro Val Asp Gln Thr Lys Lys
        195                 200                 205
Glu Ala Glu Pro Ile Pro Glu Thr Val Lys Pro Glu Glu Lys Glu Thr
    210                 215                 220
Thr Lys Asn Val Gln Gln Thr Val Ser Ala Lys Gly Pro Pro Glu Lys
225                 230                 235                 240
Arg Met Arg Leu Gln
                245

    <210> 41
    <211> 163
```

<212> PRT
<213> Homo sapien

<400> 41
Gly Glu Arg Gln Gly Leu Val Ala Arg Ala Arg Leu Ser Leu Arg Pro
1   5   10   15
Ser Ile Pro Glu Leu Ser Glu Arg Thr Ser Arg Pro Cys Arg Ala Ser
            20   25   30
Pro Ala Ser Leu Pro Ser Gln His Thr Ser Ser Pro Ala Gln Ala Arg
        35   40   45
Val Arg Asn Leu Ala Gln Ser Thr Phe Pro Leu Ala Ala Gln Glu Thr
    50   55   60
Pro Gly Arg Ala Pro Ala His Ala Pro Leu Ser Ser Phe Val Pro Gly
65   70   75   80
Val Gly Gly Arg Ser Pro Ala Ser Val Gly Ile Ser Ala Pro Gly Gly
                85   90   95
Gly Pro Ser Gly Ala Ala Ala Lys Ile Pro Leu Glu Leu Thr Gln Ser
            100   105   110
Arg Val Gln Lys Ile Trp Val Pro Val Asp His Arg Pro Ser Leu Pro
        115   120   125
Arg Ser Cys Gly Pro Lys Leu Thr Asn Ser Pro Ala Val Phe Val Met
    130   135   140
Val Gly Leu Pro Arg Pro Gly Gln Asp Leu Leu Leu His Glu Ser Leu
145   150   155   160
Leu Ala Ala

<210> 42
<211> 243
<212> PRT
<213> Homo sapien

<400> 42
Val Asp Ile Arg Asp Asn Leu Leu Gly Ile Ser Trp Val Asp Ser Ser
1   5   10   15
Trp Ile Pro Ile Leu Asn Ser Gly Ser Val Leu Asp Tyr Phe Ser Glu
            20   25   30
Arg Ser Asn Pro Phe Tyr Asp Arg Thr Cys Asn Asn Glu Val Val Lys
        35   40   45
Met Gln Arg Leu Thr Leu Glu His Leu Asn Gln Met Val Gly Ile Glu
    50   55   60
Tyr Ile Leu Leu His Ala Gln Glu Pro Ile Leu Phe Ile Ile Arg Lys
65   70   75   80
Gln Gln Arg Gln Ser Pro Ala Gln Val Ile Pro Leu Ala Asp Tyr Tyr
                85   90   95
Ile Ile Ala Gly Val Ile Tyr Gln Ala Pro Asp Leu Gly Ser Val Ile
            100   105   110
Asn Ser Arg Val Leu Thr Ala Val His Gly Ile Gln Ser Ala Phe Asp
        115   120   125
Glu Ala Met Ser Tyr Cys Arg Tyr His Pro Ser Lys Gly Tyr Trp Trp
    130   135   140
His Phe Lys Asp His Glu Glu Gln Asp Lys Val Arg Pro Lys Ala Lys
145   150   155   160
Arg Lys Glu Glu Pro Ser Ser Ile Phe Gln Arg Gln Arg Val Asp Ala

```
                165                 170                 175
Leu Leu Leu Asp Leu Arg Gln Lys Phe Pro Pro Lys Phe Val Gln Leu
            180                 185                 190
Lys Pro Gly Glu Lys Pro Val Pro Val Asp Gln Thr Lys Lys Glu Ala
        195                 200                 205
Glu Pro Ile Pro Glu Thr Val Lys Pro Glu Glu Lys Glu Thr Thr Lys
    210                 215                 220
Asn Val Gln Gln Thr Val Ser Ala Lys Gly Pro Pro Glu Lys Arg Met
225                 230                 235                 240
Arg Leu Gln


<210> 43
<211> 244
<212> PRT
<213> Homo sapien

<400> 43
Ala Val Asp Ile Arg Asp Asn Leu Leu Gly Ile Ser Trp Val Asp Ser
1               5                   10                  15
Ser Trp Ile Pro Ile Leu Asn Ser Gly Ser Val Leu Asp Tyr Phe Ser
            20                  25                  30
Glu Arg Ser Asn Pro Phe Tyr Asp Arg Thr Cys Asn Asn Glu Val Val
        35                  40                  45
Lys Met Gln Arg Leu Thr Leu Glu His Leu Asn Gln Met Val Gly Ile
    50                  55                  60
Glu Tyr Ile Leu Leu His Ala Gln Glu Pro Ile Leu Phe Ile Ile Arg
65                  70                  75                  80
Lys Gln Gln Arg Gln Ser Pro Ala Gln Val Ile Pro Leu Ala Asp Tyr
                85                  90                  95
Tyr Ile Ile Ala Gly Val Ile Tyr Gln Ala Pro Asp Leu Gly Ser Val
            100                 105                 110
Ile Asn Ser Arg Val Leu Thr Ala Val His Gly Ile Gln Ser Ala Phe
        115                 120                 125
Asp Glu Ala Met Ser Tyr Cys Arg Tyr His Pro Ser Lys Gly Tyr Trp
    130                 135                 140
Trp His Phe Lys Asp His Glu Glu Gln Asp Lys Val Arg Pro Lys Ala
145                 150                 155                 160
Lys Arg Lys Glu Glu Pro Ser Ser Ile Phe Gln Arg Gln Arg Val Asp
                165                 170                 175
Ala Leu Leu Leu Asp Leu Arg Gln Lys Phe Pro Pro Lys Phe Val Gln
            180                 185                 190
Leu Lys Pro Gly Glu Lys Pro Val Pro Val Asp Gln Thr Lys Lys Glu
        195                 200                 205
Ala Glu Pro Ile Pro Glu Thr Val Lys Pro Glu Glu Lys Glu Thr Thr
    210                 215                 220
Lys Asn Val Gln Gln Thr Val Ser Ala Lys Gly Pro Pro Glu Lys Arg
225                 230                 235                 240
Met Arg Leu Gln


<210> 44
<211> 109
<212> PRT
```

```
<213> Homo sapien

<400> 44
Glu Leu His Phe Ser Glu Phe Thr Ser Ala Val Ala Asp Met Lys Asn
 1               5                  10                  15
Ser Val Ala Asp Arg Asp Asn Ser Pro Ser Ser Cys Ala Gly Leu Phe
            20                  25                  30
Ile Ala Ser His Ile Gly Phe Asp Trp Pro Gly Val Trp Val His Leu
        35                  40                  45
Asp Ile Ala Ala Pro Val His Ala Gly Glu Arg Ala Thr Gly Phe Gly
    50                  55                  60
Val Ala Leu Leu Leu Ala Leu Phe Gly Arg Ala Ser Glu Asp Pro Leu
65                  70                  75                  80
Leu Asn Leu Val Ser Pro Leu Asp Cys Glu Val Asp Ala Gln Glu Gly
                85                  90                  95
Asp Asn Met Gly Arg Asp Ser Lys Arg Arg Arg Leu Val
            100                 105

<210> 45
<211> 324
<212> PRT
<213> Homo sapien

<400> 45
Arg Arg Pro Val Met Ala Gln Glu Thr Ala Pro Pro Cys Gly Pro Val
 1               5                  10                  15
Ser Arg Gly Asp Ser Pro Ile Ile Glu Lys Met Glu Lys Arg Thr Cys
            20                  25                  30
Ala Leu Cys Pro Glu Gly His Glu Trp Ser Gln Ile Tyr Phe Ser Pro
        35                  40                  45
Ser Gly Asn Ile Val Ala His Glu Asn Cys Leu Leu Tyr Ser Ser Gly
    50                  55                  60
Leu Val Glu Cys Glu Thr Leu Asp Leu Arg Asn Thr Ile Arg Asn Phe
65                  70                  75                  80
Asp Val Lys Ser Val Lys Lys Glu Ile Trp Arg Gly Arg Arg Leu Lys
                85                  90                  95
Cys Ser Phe Cys Asn Lys Gly Gly Ala Thr Val Gly Cys Asp Leu Trp
            100                 105                 110
Phe Cys Lys Lys Ser Tyr His Tyr Val Cys Ala Lys Lys Asp Gln Ala
        115                 120                 125
Ile Leu Gln Val Asp Gly Asn His Gly Thr Tyr Lys Leu Phe Cys Pro
    130                 135                 140
Glu His Ser Pro Glu Gln Glu Glu Ala Thr Glu Ser Ala Asp Asp Pro
145                 150                 155                 160
Ser Met Lys Lys Lys Arg Gly Lys Asn Lys Arg Leu Ser Ser Gly Pro
                165                 170                 175
Pro Ala Gln Pro Lys Thr Met Lys Cys Ser Asn Ala Lys Arg His Met
            180                 185                 190
Thr Glu Glu Pro His Gly His Thr Asp Ala Ala Val Lys Ser Pro Phe
        195                 200                 205
Leu Lys Lys Cys Gln Glu Ala Gly Leu Leu Thr Glu Leu Phe Glu His
    210                 215                 220
Ile Leu Glu Asn Met Asp Ser Val His Gly Arg Leu Val Asp Glu Thr
225                 230                 235                 240
```

```
Ala Ser Glu Ser Asp Tyr Glu Gly Ile Glu Thr Leu Leu Phe Asp Cys
                245                 250                 255
Gly Leu Phe Lys Asp Thr Leu Arg Lys Phe Gln Glu Val Ile Lys Ser
            260                 265                 270
Lys Ala Cys Glu Trp Glu Glu Arg Gln Arg Gln Met Lys Gln Gln Leu
        275                 280                 285
Glu Ala Leu Ala Asp Leu Gln Gln Ser Leu Cys Ser Phe Gln Glu Asn
    290                 295                 300
Gly Asp Leu Asp Cys Ser Ser Ser Thr Ser Gly Ser Leu Leu Pro Pro
305                 310                 315                 320
Glu Asp His Gln
```

```
<210> 46
<211> 244
<212> PRT
<213> Homo sapien

<400> 46
Ala Val Asp Ile Arg Asp Asn Leu Leu Gly Ile Ser Trp Val Asp Ser
1               5                   10                  15
Ser Trp Ile Pro Ile Leu Asn Ser Gly Ser Val Leu Asp Tyr Phe Ser
            20                  25                  30
Glu Arg Ser Asn Pro Phe Tyr Asp Arg Thr Cys Asn Asn Glu Val Val
        35                  40                  45
Lys Met Gln Arg Leu Thr Leu Glu His Leu Asn Gln Met Val Gly Ile
    50                  55                  60
Glu Tyr Ile Leu Leu His Ala Gln Glu Pro Ile Leu Phe Ile Ile Arg
65                  70                  75                  80
Lys Gln Gln Arg Gln Ser Pro Ala Gln Val Ile Pro Leu Ala Asp Tyr
                85                  90                  95
Tyr Ile Ile Ala Gly Val Ile Tyr Gln Ala Pro Asp Leu Gly Ser Val
            100                 105                 110
Ile Asn Ser Arg Val Leu Thr Ala Val His Gly Ile Gln Ser Ala Phe
        115                 120                 125
Asp Glu Ala Met Ser Tyr Cys Arg Tyr His Pro Ser Lys Gly Tyr Trp
    130                 135                 140
Trp His Phe Lys Asp His Glu Glu Gln Asp Lys Val Arg Pro Lys Ala
145                 150                 155                 160
Lys Arg Lys Glu Glu Pro Ser Ser Ile Phe Gln Arg Gln Arg Val Asp
                165                 170                 175
Ala Leu Leu Leu Asp Leu Arg Gln Lys Phe Pro Pro Lys Phe Val Gln
            180                 185                 190
Leu Lys Pro Gly Glu Lys Pro Val Pro Val Asp Gln Thr Lys Lys Glu
        195                 200                 205
Ala Glu Pro Ile Pro Glu Thr Val Lys Pro Glu Glu Lys Glu Thr Thr
    210                 215                 220
Lys Asn Val Gln Gln Thr Val Ser Ala Lys Gly Pro Pro Glu Lys Arg
225                 230                 235                 240
Met Arg Leu Gln
```

```
<210> 47
<211> 14
```

```
<212> DNA
<213> Homo sapien

<400> 47
tttttttttt ttag                                                    14

<210> 48
<211> 10
<212> DNA
<213> Homo sapien

<400> 48
cttcaacctc                                                         10

<210> 49
<211> 496
<212> DNA
<213> Homo sapien

<400> 49
gcaccatgta ccgagcactt cggctcctcg cgcgctcgcg tcccctcgtg cgggctccag    60
ccgcagcctt agcttcggct cccggcttgg gtggcgcggc cgtgccctcg ttttggcctc   120
cgaacgcggc tcgaatggca agccaaaatt ccttccggat agaatatgat acctttggtg   180
aactaaaggt gccaaatgat aagtattatg gcgcccagac cgtgagatct acgatgaact   240
ttaagattgg aggtgtgaca gaacgcatgc caaccccagt tattaaagct tttggcatct   300
tgaagcgagc ggccgctgaa gtaaaccagg attatggtct tgatccaaag attgctaatg   360
caataatgaa ggcagcagat gaggtagctg aaggtaaatt aaatgatcat tttcctctcg   420
tggtatggca gactggatca ggaactcaga caaatatgaa tgtaaatgaa gtcattagcc   480
aatagagcaa ttgaaa                                                  496

<210> 50
<211> 499
<212> DNA
<213> Homo sapien

<400> 50
agaaaaagtc tatgtttgca gaaatacaga tccaagacaa agacaggatg ggcactgctg    60
gaaaagttat taaatgcaaa gcagctgtgc tttgggagca gaagcaaccc ttctccattg   120
aggaaataga agttgcccca ccaaagacta aagaagttcg cattaagatt ttggccacag   180
gaatctgtcg cacagatgac catgtgataa aaggaacaat ggtgtccaag tttccagtga   240
ttgtgggaca tgaggcaact gggattgtag agagcattgg agaaggagtg actacagtga   300
aaccaggtga caaagtcatc cctctctttc tgccacaatg tagagaatgc aatgcttgtc   360
gcaacccaga tggcaacctt tgcattagga gcgatattac tggtcgtgga gtactggctg   420
atggcaccac cagatttaca tgcaagggcg aaccagtcca ccacttcatg aacaccagta   480
catttaccga gtacacagt                                               499

<210> 51
<211> 887
<212> DNA
<213> Homo sapien

<400> 51
gagtctgagc agaaaggaaa agcagccttg gcagccacgt tagaggaata caaagccaca    60
gtggccagtg accagataga gatgaatcgc ctgaaggctc agctggagaa tgaaaagcag   120
```

aaagtggcag agctgtattc tatccataac tctggagaca aatctgatat tcaggacctc 180
ctggagagtg tcaggctgga caaagaaaaa gcagagactt tggctagtag cttgcaggaa 240
gatctggctc atacccgaaa tgatgccaat cgattacagg atgccattgc taaggtagag 300
gatgaatacc gagccttcca agaagaagct aagaaacaaa ttgaagattt gaatatgacg 360
ttagaaaaat taagatcaga cctggatgaa aaagaaacag aaaggagtga catgaaagaa 420
accatctttg aacttgaaga tgaagtagaa caacatcgtg ctgtgaaact tcatgacaac 480
ctcattattt ctgatctaga gaatacagtt aaaaaactcc aggaccaaaa gcacgacatg 540
gaaagagaaa taaagacact ccacagaaga cttcgggaag aatctgcgga atggcggcag 600
tttcaggctg atctccagac tgcagtagtc attgcaaatg acattaaatc tgaagcccaa 660
gaggagattg gtgatctaaa gcgccggtta catgaggctc aagaaaaaaa tgagaaactc 720
acaaaagaat tggaggaaat aaagtcacgc aagcaagagg aggagcgagg cgggtataca 780
attacatgaa tgccgttgag agagatttgg cagccttaag gcagggaatg ggactgagta 840
gaaggtcctc gacttcctca gagccaactc ctacagtaaa aaccctc 887

<210> 52
<211> 491
<212> DNA
<213> Homo sapien

<400> 52
ggcacgagct tttccaaaaa tcatgctgct cctttctcta aagttcttac attttataga 60
aaggaacctt tcactcttga ggcctactac agctctcctc aggatttgcc ctatccagat 120
cctgctatag ctcagttttc agttcagaaa gtcactcctc agtctgatgg ctccagttca 180
aaagtgaaag tcaaagttcg agtaaatgtc catggcattt tcagtgtgtc cagtgcatct 240
ttagtggagg ttcacaagtc tgaggaaaat gaggagccaa tggaaacaga tcagaatgca 300
aaggaggaag agaagatgca agtggaccag gaggaaccac atgttgaaga gcaacagcag 360
cagacaccag gcagaaaata aggcagagtc tgaagaaatg gagacctctc aagctggatc 420
caaggataaa aagatggacc aaccacccca agccaagaag gcaaaagtga agaccagtac 480
tgtggacctg g 491

<210> 53
<211> 787
<212> DNA
<213> Homo sapien

<400> 53
aagcagttga gtaggcagaa aaaagaacct cttcattaag gattaaaatg tataggccag 60
cacgtgtaac ttcgacttca agatttctga atccatatgt agtatgtttc attgtcgtcg 120
caggggtagt gatcctggca gtcaccatag ctctacttgt ttacttttta gcttttgatc 180
aaaaatctta cttttatagg agcagttttc aactcctaaa tgttgaatat aatagtcagt 240
taaattcacc agctacacag gaatacagga ctttgagtgg aagaattgaa tctctgatta 300
ctaaaacatt caaagaatca aatttaagaa atcagttcat cagagctcat gttgccaaac 360
tgaggcaaga tggtagtggt gtgagagcgg atgttgtcat gaaatttcaa ttcactagaa 420
ataacaatgg agcatcaatg aaaagcagaa ttgagtctgt tttacgacaa atgctgaata 480
actctggaaa cctggaaata aacccttcaa ctgagataac atcacttact gaccaggctg 540
cagcaaattg gcttattaat gaatgtgggg ccggtccaga cctaataaca ttgtctgagc 600
agagaatcct tggaggcact gaggctgagg agggaagctg gccgtggcaa gtcagtctgc 660
ggctcaataa tgcccaccac tgtggaggca gcctgatcaa taacatgtgg atcctgacag 720
cagctcactg cttcagaagc aactctaatc ctcgtgactg gattgccacg tctggtattt 780
ccacaac 787

<210> 54
<211> 386
<212> DNA

```
<213> Homo sapien

<400> 54
ggcattttca gtgtgtccag tgcatcttta gtggaggttc acaagtctga ggaaaatgag     60
gagccaatgg aaacagatca gaatgcaaag gaggaagaga agatgcaagt ggaccaggag    120
gaaccacatg ttgaagagca acagcagcag acaccagcag aaaataaggc agagtctgaa    180
gaaatggaga cctctcaagc tggatccaag gataaaaaga tggaccaacc accccaagcc    240
aagaaggcaa aagtgaagac cagtactgtg gacctgccaa tcgagaatca gctattatgg    300
cagatagaca gagagatgct caacttgtac attgaaaatg agggtaagat gatcatgcag    360
gataaactgg agaaggagcg gaatga                                         386

<210> 55
<211> 1462
<212> DNA
<213> Homo sapien

<400> 55
aagcagttga gtaggcagaa aaaagaacct cttcattaag gattaaaatg tataggccag     60
cacgtgtaac ttcgacttca agatttctga atccatatgt agtatgtttc attgtcgtcg    120
caggggtagt gatcctggca gtcaccatag ctctacttgt ttacttttta gcttttgatc    180
aaaaatctta cttttatagg agcagttttc aactcctaaa tgttgaatat aatagtcagt    240
taaattcacc agctacacag gaatacagga ctttgagtgg aagaattgaa tctctgatta    300
ctaaaacatt caaagaatca aatttaagaa atcagttcat cagagctcat gttgccaaac    360
tgaggcaaga tggtagtggt gtgagagcgg atgttgtcat gaaatttcaa ttcactagaa    420
ataacaatgg agcatcaatg aaaagcagaa ttgagtctgt tttacgacaa atgctgaata    480
actctggaaa cctggaaata aacccttcaa ctgagataac atcacttact gaccaggctg    540
cagcaaattg gcttattaat gaatgtgggg ccggtccaga cctaataaca ttgtctgagc    600
agagaatcct tggaggcact gaggctgagg agggaagctg gccgtggcaa gtcagtctgc    660
ggctcaataa tgcccaccac tgtggaggca gcctgatcaa taacatgtgg atcctgacag    720
cagctcactg cttcagaagc aactctaatc ctcgtgactg gattgccacg tctggtattt    780
ccacaacatt tcctaaacta agaatgagag taagaaatat tttaattcat aacaattata    840
aatctgcaac tcatgaaaat gacattgcac ttgtgagact tgagaacagt gtcaccttta    900
ccaaagatat ccatagtgtg tgtctcccag ctgctaccca gaatattcca cctggctcta    960
ctgcttatgt aacaggatgg ggcgctcaag aatatgctgg ccacacagtt ccagagctaa   1020
ggcaaggaca ggtcagaata ataagtaatg atgtatgtaa tgcaccacat agttataatg   1080
gagccatctt gtctggaatg ctgtgtgctg gagtacctca aggtggagtg gacgcatgtc   1140
agggtgactc tggtggccca ctagtacaag aagactcacg gcggctttgg tttattgtgg   1200
ggatagtaag ctggggagat cagtgtggcc tgccggataa gccaggagtg tatactcgag   1260
tgacagcata cattgactgg attaggcaac aaactgggat ctagtgcaac aagtgcatcc   1320
ctgttgcaaa gtctgtatgc aggtgtgcct gtcttaaatt ccaaagcttt acatttcaac   1380
tgaaaaagaa actagaaatg tcctaattta acatcttgtt acataaatat ggtttaacaa   1440
aaaaaaaaaa aaaaaactcg ag                                            1462

<210> 56
<211> 159
<212> PRT
<213> Homo sapien

<400> 56
Thr Met Tyr Arg Ala Leu Arg Leu Leu Ala Arg Ser Arg Pro Leu Val
1               5                   10                  15
Arg Ala Pro Ala Ala Ala Leu Ala Ser Ala Pro Gly Leu Gly Gly Ala
            20                  25                  30
Ala Val Pro Ser Phe Trp Pro Pro Asn Ala Ala Arg Met Ala Ser Gln
```

```
        35                  40                  45
Asn Ser Phe Arg Ile Glu Tyr Asp Thr Phe Gly Glu Leu Lys Val Pro
    50                  55                  60
Asn Asp Lys Tyr Tyr Gly Ala Gln Thr Val Arg Ser Thr Met Asn Phe
65                  70                  75                  80
Lys Ile Gly Gly Val Thr Glu Arg Met Pro Thr Pro Val Ile Lys Ala
                85                  90                  95
Phe Gly Ile Leu Lys Arg Ala Ala Ala Glu Val Asn Gln Asp Tyr Gly
            100                 105                 110
Leu Asp Pro Lys Ile Ala Asn Ala Ile Met Lys Ala Ala Asp Glu Val
        115                 120                 125
Ala Glu Gly Lys Leu Asn Asp His Phe Pro Leu Val Val Trp Gln Thr
    130                 135                 140
Gly Ser Gly Thr Gln Thr Asn Met Asn Val Asn Glu Val Ile Ser
145                 150                 155
```

<210> 57
<211> 165
<212> PRT
<213> Homo sapien

```
<400> 57
Lys Lys Ser Met Phe Ala Glu Ile Gln Ile Gln Asp Lys Asp Arg Met
1               5                   10                  15
Gly Thr Ala Gly Lys Val Ile Lys Cys Lys Ala Ala Val Leu Trp Glu
            20                  25                  30
Gln Lys Gln Pro Phe Ser Ile Glu Glu Ile Glu Val Ala Pro Pro Lys
        35                  40                  45
Thr Lys Glu Val Arg Ile Lys Ile Leu Ala Thr Gly Ile Cys Arg Thr
    50                  55                  60
Asp Asp His Val Ile Lys Gly Thr Met Val Ser Lys Phe Pro Val Ile
65                  70                  75                  80
Val Gly His Glu Ala Thr Gly Ile Val Glu Ser Ile Gly Glu Gly Val
                85                  90                  95
Thr Thr Val Lys Pro Gly Asp Lys Val Ile Pro Leu Phe Leu Pro Gln
            100                 105                 110
Cys Arg Glu Cys Asn Ala Cys Arg Asn Pro Asp Gly Asn Leu Cys Ile
        115                 120                 125
Arg Ser Asp Ile Thr Gly Arg Gly Val Leu Ala Asp Gly Thr Thr Arg
    130                 135                 140
Phe Thr Cys Lys Gly Glu Pro Val His His Phe Met Asn Thr Ser Thr
145                 150                 155                 160
Phe Thr Glu Tyr Thr
                165
```

<210> 58
<211> 259
<212> PRT
<213> Homo sapien

```
<400> 58
Glu Ser Glu Gln Lys Gly Lys Ala Ala Leu Ala Ala Thr Leu Glu Glu
1               5                   10                  15
Tyr Lys Ala Thr Val Ala Ser Asp Gln Ile Glu Met Asn Arg Leu Lys
```

```
            20                  25                  30
Ala Gln Leu Glu Asn Glu Lys Gln Lys Val Ala Glu Leu Tyr Ser Ile
        35                  40                  45
His Asn Ser Gly Asp Lys Ser Asp Ile Gln Asp Leu Leu Glu Ser Val
    50                  55                  60
Arg Leu Asp Lys Glu Lys Ala Glu Thr Leu Ala Ser Ser Leu Gln Glu
65                  70                  75                  80
Asp Leu Ala His Thr Arg Asn Asp Ala Asn Arg Leu Gln Asp Ala Ile
                85                  90                  95
Ala Lys Val Glu Asp Glu Tyr Arg Ala Phe Gln Glu Glu Ala Lys Lys
            100                 105                 110
Gln Ile Glu Asp Leu Asn Met Thr Leu Glu Lys Leu Arg Ser Asp Leu
        115                 120                 125
Asp Glu Lys Glu Thr Glu Arg Ser Asp Met Lys Glu Thr Ile Phe Glu
    130                 135                 140
Leu Glu Asp Glu Val Glu Gln His Arg Ala Val Lys Leu His Asp Asn
145                 150                 155                 160
Leu Ile Ile Ser Asp Leu Glu Asn Thr Val Lys Lys Leu Gln Asp Gln
                165                 170                 175
Lys His Asp Met Glu Arg Glu Ile Lys Thr Leu His Arg Arg Leu Arg
            180                 185                 190
Glu Glu Ser Ala Glu Trp Arg Gln Phe Gln Ala Asp Leu Gln Thr Ala
        195                 200                 205
Val Val Ile Ala Asn Asp Ile Lys Ser Glu Ala Gln Glu Glu Ile Gly
    210                 215                 220
Asp Leu Lys Arg Arg Leu His Glu Ala Gln Glu Lys Asn Glu Lys Leu
225                 230                 235                 240
Thr Lys Glu Leu Glu Glu Ile Lys Ser Arg Lys Gln Glu Glu Glu Arg
                245                 250                 255

Gly Gly Tyr


      <210> 59
      <211> 125
      <212> PRT
      <213> Homo sapien

      <400> 59
Gly Thr Ser Phe Ser Lys Asn His Ala Ala Pro Phe Ser Lys Val Leu
1               5                   10                  15
Thr Phe Tyr Arg Lys Glu Pro Phe Thr Leu Glu Ala Tyr Tyr Ser Ser
            20                  25                  30
Pro Gln Asp Leu Pro Tyr Pro Asp Pro Ala Ile Ala Gln Phe Ser Val
        35                  40                  45
Gln Lys Val Thr Pro Gln Ser Asp Gly Ser Ser Ser Lys Val Lys Val
    50                  55                  60
Lys Val Arg Val Asn Val His Gly Ile Phe Ser Val Ser Ser Ala Ser
65                  70                  75                  80
Leu Val Glu Val His Lys Ser Glu Glu Asn Glu Glu Pro Met Glu Thr
                85                  90                  95
Asp Gln Asn Ala Lys Glu Glu Glu Lys Met Gln Val Asp Gln Glu Glu
            100                 105                 110
Pro His Val Glu Glu Gln Gln Gln Gln Thr Pro Gly Arg
        115                 120                 125
```

<210> 60
<211> 246
<212> PRT
<213> Homo sapien

<400> 60
Met Tyr Arg Pro Ala Arg Val Thr Ser Thr Ser Arg Phe Leu Asn Pro
1 5 10 15
Tyr Val Val Cys Phe Ile Val Val Ala Gly Val Val Ile Leu Ala Val
20 25 30
Thr Ile Ala Leu Leu Val Tyr Phe Leu Ala Phe Asp Gln Lys Ser Tyr
35 40 45
Phe Tyr Arg Ser Ser Phe Gln Leu Leu Asn Val Glu Tyr Asn Ser Gln
50 55 60
Leu Asn Ser Pro Ala Thr Gln Glu Tyr Arg Thr Leu Ser Gly Arg Ile
65 70 75 80
Glu Ser Leu Ile Thr Lys Thr Phe Lys Glu Ser Asn Leu Arg Asn Gln
85 90 95
Phe Ile Arg Ala His Val Ala Lys Leu Arg Gln Asp Gly Ser Gly Val
100 105 110
Arg Ala Asp Val Val Met Lys Phe Gln Phe Thr Arg Asn Asn Asn Gly
115 120 125
Ala Ser Met Lys Ser Arg Ile Glu Ser Val Leu Arg Gln Met Leu Asn
130 135 140
Asn Ser Gly Asn Leu Glu Ile Asn Pro Ser Thr Glu Ile Thr Ser Leu
145 150 155 160
Thr Asp Gln Ala Ala Ala Asn Trp Leu Ile Asn Glu Cys Gly Ala Gly
165 170 175
Pro Asp Leu Ile Thr Leu Ser Glu Gln Arg Ile Leu Gly Gly Thr Glu
180 185 190
Ala Glu Glu Gly Ser Trp Pro Trp Gln Val Ser Leu Arg Leu Asn Asn
195 200 205
Ala His His Cys Gly Gly Ser Leu Ile Asn Asn Met Trp Ile Leu Thr
210 215 220
Ala Ala His Cys Phe Arg Ser Asn Ser Asn Pro Arg Asp Trp Ile Ala
225 230 235 240
Thr Ser Gly Ile Ser Thr
245

<210> 61
<211> 128
<212> PRT
<213> Homo sapien

<400> 61
Gly Ile Phe Ser Val Ser Ser Ala Ser Leu Val Glu Val His Lys Ser
1 5 10 15
Glu Glu Asn Glu Glu Pro Met Glu Thr Asp Gln Asn Ala Lys Glu Glu
20 25 30
Glu Lys Met Gln Val Asp Gln Glu Glu Pro His Val Glu Glu Gln Gln
35 40 45
Gln Gln Thr Pro Ala Glu Asn Lys Ala Glu Ser Glu Glu Met Glu Thr
50 55 60

```
Ser Gln Ala Gly Ser Lys Asp Lys Lys Met Asp Gln Pro Pro Gln Ala
65                  70                  75                  80
Lys Lys Ala Lys Val Lys Thr Ser Thr Val Asp Leu Pro Ile Glu Asn
                85                  90                  95
Gln Leu Leu Trp Gln Ile Asp Arg Glu Met Leu Asn Leu Tyr Ile Glu
            100                 105                 110
Asn Glu Gly Lys Met Ile Met Gln Asp Lys Leu Glu Lys Glu Arg Asn
        115                 120                 125

      <210> 62
      <211> 418
      <212> PRT
      <213> Homo sapien

      <400> 62
Met Tyr Arg Pro Ala Arg Val Thr Ser Thr Ser Arg Phe Leu Asn Pro
 1               5                  10                  15
Tyr Val Val Cys Phe Ile Val Val Ala Gly Val Val Ile Leu Ala Val
            20                  25                  30
Thr Ile Ala Leu Leu Val Tyr Phe Leu Ala Phe Asp Gln Lys Ser Tyr
        35                  40                  45
Phe Tyr Arg Ser Ser Phe Gln Leu Leu Asn Val Glu Tyr Asn Ser Gln
    50                  55                  60
Leu Asn Ser Pro Ala Thr Gln Glu Tyr Arg Thr Leu Ser Gly Arg Ile
65                  70                  75                  80
Glu Ser Leu Ile Thr Lys Thr Phe Lys Glu Ser Asn Leu Arg Asn Gln
                85                  90                  95
Phe Ile Arg Ala His Val Ala Lys Leu Arg Gln Asp Gly Ser Gly Val
            100                 105                 110
Arg Ala Asp Val Val Met Lys Phe Gln Phe Thr Arg Asn Asn Asn Gly
        115                 120                 125
Ala Ser Met Lys Ser Arg Ile Glu Ser Val Leu Arg Gln Met Leu Asn
    130                 135                 140
Asn Ser Gly Asn Leu Glu Ile Asn Pro Ser Thr Glu Ile Thr Ser Leu
145                 150                 155                 160
Thr Asp Gln Ala Ala Ala Asn Trp Leu Ile Asn Glu Cys Gly Ala Gly
                165                 170                 175
Pro Asp Leu Ile Thr Leu Ser Glu Gln Arg Ile Leu Gly Gly Thr Glu
            180                 185                 190
Ala Glu Glu Gly Ser Trp Pro Trp Gln Val Ser Leu Arg Leu Asn Asn
        195                 200                 205
Ala His His Cys Gly Gly Ser Leu Ile Asn Asn Met Trp Ile Leu Thr
    210                 215                 220
Ala Ala His Cys Phe Arg Ser Asn Ser Asn Pro Arg Asp Trp Ile Ala
225                 230                 235                 240
Thr Ser Gly Ile Ser Thr Thr Phe Pro Lys Leu Arg Met Arg Val Arg
                245                 250                 255
Asn Ile Leu Ile His Asn Asn Tyr Lys Ser Ala Thr His Glu Asn Asp
            260                 265                 270
Ile Ala Leu Val Arg Leu Glu Asn Ser Val Thr Phe Thr Lys Asp Ile
        275                 280                 285
His Ser Val Cys Leu Pro Ala Ala Thr Gln Asn Ile Pro Pro Gly Ser
    290                 295                 300
Thr Ala Tyr Val Thr Gly Trp Gly Ala Gln Glu Tyr Ala Gly His Thr
```

Val Pro Glu Leu Arg Gln Gly Gln Val Arg Ile Ile Ser Asn Asp Val
305   310   315   320

Cys Asn Ala Pro His Ser Tyr Asn Gly Ala Ile Leu Ser Gly Met Leu
                325   330   335

Cys Ala Gly Val Pro Gln Gly Gly Val Asp Ala Cys Gln Gly Asp Ser
            340   345   350

Gly Gly Pro Leu Val Gln Glu Asp Ser Arg Arg Leu Trp Phe Ile Val
        355   360   365

Gly Ile Val Ser Trp Gly Asp Gln Cys Gly Leu Pro Asp Lys Pro Gly
    370   375   380

Val Tyr Thr Arg Val Thr Ala Tyr Ile Asp Trp Ile Arg Gln Gln Thr
385   390   395   400

Gly Ile
                405   410   415

<210> 63
<211> 776
<212> DNA
<213> Homo sapien

<400> 63
cacagatggt gatagaggaa tccatcttgc agtcagataa agccctcact gatagagaga 60
aggcagtagc agtggatcgg gccaagaagg aggcagctga gaaggaacag gaacttttaa 120
aacagaaatt acaggagcag ccagcaacag atggaggctc aagataagag tcgcaaggaa 180
aactagccaa ctgaaggaga agctgcagat ggagagagaa cacctactga gagagcagat 240
tatgatgttg gagcacacgc agaaggtcca aaatgattgg cttcatgaag gatttaagaa 300
gaagtatgag gagatgaatg cagagataag tcaatttaaa cgtatgattg atactacaaa 360
aaatgatgat actccctgga ttgcacgaac cttggacaac cttgccgatg agctaactgc 420
aatattgtct gctcctgcta aattaattgg tcatggtgtc aaaggtgtga gctcactctt 480
taaaaagcat aagctcccct tttaaggata ttatagattg tacatatatg ctttggacta 540
tttttgatct gtatgttttt cattttcatt cagcaagttt tttttttttt tcagagtctt 600
actctgttgc ccaggctgga gtacagtggt gcaatctcag ctcactgcaa cctctgcctc 660
ctgggttcaa gagattcacc tgcctcagcc ccctagtagc tgggattata ggtgtacacc 720
accacaccca gctaattttt gtatttttag tagagatggg gtttcactat gttggc 776

<210> 64
<211> 160
<212> DNA
<213> Homo sapien

<400> 64
gcagcgctct cggttgcagt acccactgga aggacttagg cgctcgcgtg gacaccgcaa 60
gcccctcagt agcctcggcc caagaggcct gctttccact cgctagcccc gccgggggtc 120
cgtgtcctgt ctcggtggcc ggacccgggc ccgagcccga 160

<210> 65
<211> 72
<212> PRT
<213> Homo sapien

<400> 65
Leu Ser Ala Met Gly Phe Thr Ala Ala Gly Ile Ala Ser Ser Ser Ile
1   5   10   15

```
Ala Ala Lys Met Met Ser Ala Ala Ala Ile Ala Asn Gly Gly Gly Val
            20                  25                  30
Ala Ser Gly Ser Leu Val Ala Thr Leu Gln Ser Leu Gly Ala Thr Gly
        35                  40                  45
Leu Ser Gly Leu Thr Lys Phe Ile Leu Gly Ser Ile Gly Ser Ala Ile
    50                  55                  60
Ala Ala Val Ile Ala Arg Phe Tyr
65                  70
```

```
<210> 66
<211> 2581
<212> DNA
<213> Homo sapien
```

```
<400> 66
ctttcaaccc gcgctcgccg gctccagccc cgcgcgcccc caccccttgc cctcccggcg      60
gctccgcagg gtgaggtggc tttgaccccg ggttgcccgg ccagcacgac cgaggaggtg     120
gctggacagc tggaggatga acggagaagc cgactgcccc acagacctgg aaatggccgc     180
ccccaaaggc caagaccgtt ggtcccagga agacatgctg actttgctgg aatgcatgaa     240
gaacaacctt ccatccaatg acagctccaa gttcaaaacc accgaatcac acatggactg     300
ggaaaaagta gcatttaaag acttttctgg agacatgtgc aagctcaaat gggtggagat     360
ttctaatgag gtgaggaagt tccgtacatt gacagaattg atcctcgatg ctcaggaaca     420
tgttaaaaat ccttacaaag gcaaaaaact caagaaacac ccagacttcc caaagaagcc     480
cctgacccct tatttccgct tcttcatgga gaagcgggcc aagtatgcga aactccaccc     540
tgagatgagc aacctggacc taaccaagat tctgtccaag aaatacaagg agcttccgga     600
gaagaagaag atgaaatata ttcaggactt ccagagagag aaacaggagt tcgagcgaaa     660
cctggcccga ttcagggagg atcaccccga cctaatccag aatgccaaga aatcggacat     720
cccagagaag cccaaaaccc cccagcagct gtggtacacc cacgagaaga aggtgtatct     780
caaagtgcgg ccagatgcca ctacgaagga ggtgaaggac tccctgggga agcagtggtc     840
tcagctctcg gacaaaaaga ggctgaaatg gattcataag gccctggagc agcggaagga     900
gtacgaggag atcatgagag actatatcca gaagcaccca gagctgaaca tcagtgagga     960
gggtatcacc aagtccaccc tcaccaaggc cgaacgccag ctcaaggaca agtttgacgg    1020
gcgacccacc aagccacctc cgaacagcta ctcgctgtac tgcgcagagc tcatggccaa    1080
catgaaggac gtgcccagca cagagcgcat ggtgctgtgc agccagcagt ggaagctgct    1140
gtcccagaag gagaaggacg cctatcacaa gaagtgtgat cagaaaaaga aagattacga    1200
ggtggagctg ctccgtttcc tcgagagcct gcctgaggag gagcagcagc gggtcttggg    1260
ggaagagaag atgctgaaca tcaacaagaa gcaggccacc agccccgcct ccaagaagcc    1320
agcccaggaa gggggcaagg gcggctccga gaagcccaag cggcccgtgt cggccatgtt    1380
catcttctcg gaggagaaac ggcggcagct gcaggaggag cggcctgagc tctccgagag    1440
cgagctgacc cgcctgctgg cccgaatgtg gaacgacctg tctgagaaga agaaggccaa    1500
gtacaaggcc cgagaggcgg cgctcaaggc tcagtcggag aggaagcccg gcggggagcg    1560
cgaggaacgg ggcaagctgc ccgagtcccc caaaagagct gaggagatct ggcaacagag    1620
cgttatcggc gactacctgg cccgcttcaa gaatgaccgg gtgaaggcct tgaaagccat    1680
ggaaatgacc tggaataaca tggaaaagaa ggagaaactg atgtggatta agaaggcagc    1740
cgaagaccaa aagcgatatg agagagagct gagtgagatg cgggcacctc cagctgctac    1800
aaattcttcc aagaagatga aattccaggg agaacccaag aagcctccca tgaacggtta    1860
ccagaagttc tcccaggagc tgctgtccaa tggggagctg aaccacctgc cgctgaagga    1920
gcgcatggtg gagatcggca gtcgctggca gcgcatctcc cagagccaga aggagcacta    1980
caaaaagctg gccgaggagc agcaaaagca gtacaaggtg cacctggacc tctgggttaa    2040
gagcctgtct ccccaggacc gtgcagcata taaagagtac atctccaata aacgtaagag    2100
catgaccaag ctgcgaggcc caaaccccaa atccagccgg actactctgc agtccaagtc    2160
ggagtccgag gaggatgatg aagaggatga ggatgacgag gacgaggatg aagaagagga    2220
agatgatgag aatggggact cctctgaaga tggcggcgac tcctctgagt ccagcagcga    2280
ggacgagagc gaggatgggg atgagaatga agaggatgac gaggacgaag acgacgacga    2340
```

```
                                                                     2400
ggatgacgat gaggatgaag ataatgagtc cgagggcagc agctccagct cctcctcctt    2460
aggggactcc tcagactttg actccaactg aggcttagcc ccaccccagg ggagccaggg    2520
agagcccagg agctcccctc cccaactgac cacctttgtt tcttccccat gttctgtccc    2580
ttgcccccct ggcctccccc actttctttc tttctttaaa aaaaaaaaaa aaaaactcga    2581
g

      <210> 67
      <211> 764
      <212> PRT
      <213> Homo sapien

      <400> 67
Met Asn Gly Glu Ala Asp Cys Pro Thr Asp Leu Glu Met Ala Ala Pro
 1               5                  10                  15
Lys Gly Gln Asp Arg Trp Ser Gln Glu Asp Met Leu Thr Leu Leu Glu
            20                  25                  30
Cys Met Lys Asn Asn Leu Pro Ser Asn Asp Ser Ser Lys Phe Lys Thr
        35                  40                  45
Thr Glu Ser His Met Asp Trp Glu Lys Val Ala Phe Lys Asp Phe Ser
    50                  55                  60
Gly Asp Met Cys Lys Leu Lys Trp Val Glu Ile Ser Asn Glu Val Arg
65                  70                  75                  80
Lys Phe Arg Thr Leu Thr Glu Leu Ile Leu Asp Ala Gln Glu His Val
                85                  90                  95
Lys Asn Pro Tyr Lys Gly Lys Lys Leu Lys Lys His Pro Asp Phe Pro
            100                 105                 110
Lys Lys Pro Leu Thr Pro Tyr Phe Arg Phe Phe Met Glu Lys Arg Ala
        115                 120                 125
Lys Tyr Ala Lys Leu His Pro Glu Met Ser Asn Leu Asp Leu Thr Lys
    130                 135                 140
Ile Leu Ser Lys Lys Tyr Lys Glu Leu Pro Glu Lys Lys Lys Met Lys
145                 150                 155                 160
Tyr Ile Gln Asp Phe Gln Arg Glu Lys Gln Glu Phe Glu Arg Asn Leu
                165                 170                 175
Ala Arg Phe Arg Glu Asp His Pro Asp Leu Ile Gln Asn Ala Lys Lys
            180                 185                 190
Ser Asp Ile Pro Glu Lys Pro Lys Thr Pro Gln Gln Leu Trp Tyr Thr
        195                 200                 205
His Glu Lys Lys Val Tyr Leu Lys Val Arg Pro Asp Ala Thr Thr Lys
    210                 215                 220
Glu Val Lys Asp Ser Leu Gly Lys Gln Trp Ser Gln Leu Ser Asp Lys
225                 230                 235                 240
Lys Arg Leu Lys Trp Ile His Lys Ala Leu Glu Gln Arg Lys Glu Tyr
                245                 250                 255
Glu Glu Ile Met Arg Asp Tyr Ile Gln Lys His Pro Glu Leu Asn Ile
            260                 265                 270
Ser Glu Glu Gly Ile Thr Lys Ser Thr Leu Thr Lys Ala Glu Arg Gln
        275                 280                 285
Leu Lys Asp Lys Phe Asp Gly Arg Pro Thr Lys Pro Pro Pro Asn Ser
    290                 295                 300
Tyr Ser Leu Tyr Cys Ala Glu Leu Met Ala Asn Met Lys Asp Val Pro
305                 310                 315                 320
Ser Thr Glu Arg Met Val Leu Cys Ser Gln Gln Trp Lys Leu Leu Ser
                325                 330                 335
```

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Gln Lys Glu Lys Asp Ala Tyr His Lys Lys Cys Asp Gln Lys Lys Lys
            340                 345                 350

Asp Tyr Glu Val Glu Leu Leu Arg Phe Leu Glu Ser Leu Pro Glu Glu
        355                 360                 365

Glu Gln Gln Arg Val Leu Gly Glu Glu Lys Met Leu Asn Ile Asn Lys
    370                 375                 380

Lys Gln Ala Thr Ser Pro Ala Ser Lys Lys Pro Ala Gln Glu Gly Gly
385                 390                 395                 400

Lys Gly Gly Ser Glu Lys Pro Lys Arg Pro Val Ser Ala Met Phe Ile
                405                 410                 415

Phe Ser Glu Glu Lys Arg Arg Gln Leu Gln Glu Glu Arg Pro Glu Leu
            420                 425                 430

Ser Glu Ser Glu Leu Thr Arg Leu Leu Ala Arg Met Trp Asn Asp Leu
        435                 440                 445

Ser Glu Lys Lys Lys Ala Lys Tyr Lys Ala Arg Glu Ala Ala Leu Lys
    450                 455                 460

Ala Gln Ser Glu Arg Lys Pro Gly Gly Glu Arg Glu Glu Arg Gly Lys
465                 470                 475                 480

Leu Pro Glu Ser Pro Lys Arg Ala Glu Glu Ile Trp Gln Gln Ser Val
                485                 490                 495

Ile Gly Asp Tyr Leu Ala Arg Phe Lys Asn Asp Arg Val Lys Ala Leu
            500                 505                 510

Lys Ala Met Glu Met Thr Trp Asn Asn Met Glu Lys Lys Glu Lys Leu
        515                 520                 525

Met Trp Ile Lys Lys Ala Ala Glu Asp Gln Lys Arg Tyr Glu Arg Glu
    530                 535                 540

Leu Ser Glu Met Arg Ala Pro Pro Ala Ala Thr Asn Ser Ser Lys Lys
545                 550                 555                 560

Met Lys Phe Gln Gly Glu Pro Lys Lys Pro Pro Met Asn Gly Tyr Gln
                565                 570                 575

Lys Phe Ser Gln Glu Leu Leu Ser Asn Gly Glu Leu Asn His Leu Pro
            580                 585                 590

Leu Lys Glu Arg Met Val Glu Ile Gly Ser Arg Trp Gln Arg Ile Ser
        595                 600                 605

Gln Ser Gln Lys Glu His Tyr Lys Lys Leu Ala Glu Glu Gln Gln Lys
    610                 615                 620

Gln Tyr Lys Val His Leu Asp Leu Trp Val Lys Ser Leu Ser Pro Gln
625                 630                 635                 640

Asp Arg Ala Ala Tyr Lys Glu Tyr Ile Ser Asn Lys Arg Lys Ser Met
                645                 650                 655

Thr Lys Leu Arg Gly Pro Asn Pro Lys Ser Ser Arg Thr Thr Leu Gln
            660                 665                 670

Ser Lys Ser Glu Ser Glu Glu Asp Asp Glu Glu Asp Glu Asp Asp Glu
        675                 680                 685

Asp Glu Asp Glu Glu Glu Glu Asp Asp Glu Asn Gly Asp Ser Ser Glu
    690                 695                 700

Asp Gly Gly Asp Ser Ser Glu Ser Ser Ser Glu Asp Glu Ser Glu Asp
705                 710                 715                 720

Gly Asp Glu Asn Glu Glu Asp Asp Glu Asp Glu Asp Asp Asp Glu Asp
                725                 730                 735

Asp Asp Glu Asp Glu Asp Asn Glu Ser Glu Gly Ser Ser Ser Ser Ser
            740                 745                 750

Ser Ser Leu Gly Asp Ser Ser Asp Phe Asp Ser Asn
        755                 760
```

<210> 68
<211> 434
<212> DNA
<213> Homo sapien

<400> 68
ctaagatgct ggatgctgaa gacatcgtcg gaactgcccg gccagatgag aaagccatta 60
tgacttatgt gtctagcttc tatcatgcct tctctggagc ccagaaggca gaaacagcag 120
ccaatcgcat ctgcaaagtg ttggcggtca atcaagagaa cgagcagctt atggaagact 180
atgagaagct ggccagtgat ctgttggagt ggatccgccg caccatccca tggctggaga 240
atcgggtgcc tgagaacacc atgcatgcca tgcagcagaa gctggaggac ttccgagact 300
atagacgcct gcacaagccg cccaaggtgc aggagaagtg ccagctggag atcaacttta 360
acacgctgca gaccaaactg cggctcagca accggcctgc cttcatgccc tccgagggca 420
ggatggtctc ggat 434

<210> 69
<211> 244
<212> DNA
<213> Homo sapien

<400> 69
aggcagcatg ctcgttgaga gtcatcacca ctccctaatc tcaagtacgc agggacacaa 60
acactgcgga aggccgcagg gtcctctgcc taggaaaacc agagaccttt gttcacttgt 120
ttatgtgctg accttccctc cactattgtc ctgtgaccct gccaaatccc cctttgtgag 180
aaacacccaa gaatgatcaa taaaaaataa attaatttag gaaaaaaaaa aaaaaaaact 240
cgag 244

<210> 70
<211> 437
<212> DNA
<213> Homo sapien

<400> 70
ctgggacggg agcgtccagc gggactcgaa ccccagatgt gaaggcgttt ctggaaagtc 60
cttggtccct ggatccagcg tcggccagcc cagagcccgt gccgcacatc cttgcgtcct 120
ccaggcagtg ggaccccgcg agctgcacgt ccctgggcac ggacaagtgt gaggcactgt 180
tggggctgtg ccaggtgcgg ggtgggctgc cccctttctc agaaccttcc agcctggtgc 240
cgtggccccc aggccggagt cttcctaagg ctgtgaggcc acccctgtcc tggcctccgt 300
tctcgcagca gcagaccttg cccgtgatga gcggggaggc ccttggctgg ctgggccagg 360
ctggttccct ggccatgggg gctgcacctc tgggggagcc agccaaggag gaccccatgc 420
tggcgcagga agccggg 437

<210> 71
<211> 271
<212> DNA
<213> Homo sapien

<400> 71
gcgcagagtt ctgtcgtcca ccatcgagtg aggaagagag cattggttcc cctgagatag 60
aagagatggc tctcttcagt gcccagtctc catacattaa cccgatcatc ccctttactg 120
gaccaatcca aggagggctg caggagggac ttcaggtgac cctccagggg actaccgaga 180
gttttgcaca aaagtttgtg gtgaactttt cagaacagct tcaatggaga tgacttggcc 240
ttccacttca accccggtta tgaggaagga g 271

```
<210> 72
<211> 290
<212> DNA
<213> Homo sapien

<400> 72
ccgagcccta cccggaggtc tccagaatcc ccaccgtcag gggatgcaac ggctccctgt     60
ctggtgccct ctcctgctgc gaggactcgg cccagggctc gggcccgccc aaggccccta    120
cggtggccga gggtcccagc tcctgccttc ggcggaacgt gatcagcgag agggagcgca    180
ggaagcggat gtcgttgagc tgtgagcgtc tgcgggccct gctgccccag ttcgatggcc    240
ggcgggagga catggcctcg gtcctggaga tgtctgttgc aattcctgcg                290

<210> 73
<211> 144
<212> PRT
<213> Homo sapien

<400> 73
Lys Met Leu Asp Ala Glu Asp Ile Val Gly Thr Ala Arg Pro Asp Glu
 1               5                  10                  15
Lys Ala Ile Met Thr Tyr Val Ser Ser Phe Tyr His Ala Phe Ser Gly
            20                  25                  30
Ala Gln Lys Ala Glu Thr Ala Ala Asn Arg Ile Cys Lys Val Leu Ala
        35                  40                  45
Val Asn Gln Glu Asn Glu Gln Leu Met Glu Asp Tyr Glu Lys Leu Ala
    50                  55                  60
Ser Asp Leu Leu Glu Trp Ile Arg Arg Thr Ile Pro Trp Leu Glu Asn
65                  70                  75                  80
Arg Val Pro Glu Asn Thr Met His Ala Met Gln Gln Lys Leu Glu Asp
                85                  90                  95
Phe Arg Asp Tyr Arg Arg Leu His Lys Pro Pro Lys Val Gln Glu Lys
            100                 105                 110
Cys Gln Leu Glu Ile Asn Phe Asn Thr Leu Gln Thr Lys Leu Arg Leu
        115                 120                 125
Ser Asn Arg Pro Ala Phe Met Pro Ser Glu Gly Arg Met Val Ser Asp
    130                 135                 140

<210> 74
<211> 64
<212> PRT
<213> Homo sapien

<400> 74
Gly Ser Met Leu Val Glu Ser His His His Ser Leu Ile Ser Ser Thr
 1               5                  10                  15
Gln Gly His Lys His Cys Gly Arg Pro Gln Gly Pro Leu Pro Arg Lys
            20                  25                  30
Thr Arg Asp Leu Cys Ser Leu Val Tyr Val Leu Thr Phe Pro Pro Leu
        35                  40                  45
Leu Ser Cys Asp Pro Ala Lys Ser Pro Phe Val Arg Asn Thr Gln Glu
    50                  55                  60

<210> 75
```

```
<211> 145
<212> PRT
<213> Homo sapien

<400> 75
Gly Thr Gly Ala Ser Ser Gly Thr Arg Thr Pro Asp Val Lys Ala Phe
1               5                   10                  15
Leu Glu Ser Pro Trp Ser Leu Asp Pro Ala Ser Ala Ser Pro Glu Pro
            20                  25                  30
Val Pro His Ile Leu Ala Ser Ser Arg Gln Trp Asp Pro Ala Ser Cys
        35                  40                  45
Thr Ser Leu Gly Thr Asp Lys Cys Glu Ala Leu Leu Gly Leu Cys Gln
    50                  55                  60
Val Arg Gly Gly Leu Pro Pro Phe Ser Glu Pro Ser Ser Leu Val Pro
65                  70                  75                  80
Trp Pro Pro Gly Arg Ser Leu Pro Lys Ala Val Arg Pro Pro Leu Ser
                85                  90                  95
Trp Pro Pro Phe Ser Gln Gln Gln Thr Leu Pro Val Met Ser Gly Glu
            100                 105                 110
Ala Leu Gly Trp Leu Gly Gln Ala Gly Ser Leu Ala Met Gly Ala Ala
        115                 120                 125
Pro Leu Gly Glu Pro Ala Lys Glu Asp Pro Met Leu Ala Gln Glu Ala
    130                 135                 140
Gly
145

<210> 76
<211> 69
<212> PRT
<213> Homo sapien

<400> 76
Ala Glu Phe Cys Arg Pro Pro Ser Ser Glu Glu Glu Ser Ile Gly Ser
1               5                   10                  15
Pro Glu Ile Glu Glu Met Ala Leu Phe Ser Ala Gln Ser Pro Tyr Ile
            20                  25                  30
Asn Pro Ile Ile Pro Phe Thr Gly Pro Ile Gln Gly Gly Leu Gln Glu
        35                  40                  45
Gly Leu Gln Val Thr Leu Gln Gly Thr Thr Glu Ser Phe Ala Gln Lys
    50                  55                  60
Phe Val Val Asn Phe
65

<210> 77
<211> 96
<212> PRT
<213> Homo sapien

<400> 77
Glu Pro Tyr Pro Glu Val Ser Arg Ile Pro Thr Val Arg Gly Cys Asn
1               5                   10                  15
Gly Ser Leu Ser Gly Ala Leu Ser Cys Cys Glu Asp Ser Ala Gln Gly
            20                  25                  30
Ser Gly Pro Pro Lys Ala Pro Thr Val Ala Glu Gly Pro Ser Ser Cys
```

```
                                                45
        35                  40
Leu Arg Arg Asn Val Ile Ser Glu Arg Glu Arg Arg Lys Arg Met Ser
    50                  55                  60
Leu Ser Cys Glu Arg Leu Arg Ala Leu Leu Pro Gln Phe Asp Gly Arg
65                  70                  75                  80
Arg Glu Asp Met Ala Ser Val Leu Glu Met Ser Val Ala Ile Pro Ala
                85                  90                  95
```

```
<210> 78
<211> 2076
<212> DNA
<213> Homo sapien

<400> 78
agaaaaagtc tatgtttgca gaaatacaga tccaagacaa agacaggatg ggcactgctg       60
gaaaagttat taaatgcaaa gcagctgtgc tttgggagca gaagcaaccc ttctccattg      120
aggaaataga agttgcccca ccaaagacta aagaagttcg cattaagatt ttggccacag      180
gaatctgtcg cacagatgac catgtgataa aaggaacaat ggtgtccaag tttccagtga      240
ttgtgggaca tgaggcaact gggattgtag agagcattgg agaaggagtg actacagtga      300
aaccaggtga caaagtcatc cctctctttc tgccacaatg tagagaatgc aatgcttgtc      360
gcaacccaga tggcaacctt tgcattagga gcgatattac tggtcgtgga gtactggctg      420
atggcaccac cagatttaca tgcaagggca aaccagtcca ccacttcatg aacaccagta      480
catttaccga gtacacagtg gtggatgaat cttctgttgc taagattgat gatgcagctc      540
ctcctgagaa agtctgttta attggctgtg ggttttccac tggatatggc gctgctgtta      600
aaactggcaa ggtcaaacct ggttccactt gcgtcgtctt tggcctgaga ggagttggcc      660
tgtcagtcat catgggctgt aagtcagctg gtgcatctag gatcattggg attgacctca      720
acaaagacaa atttgagaag gccatggctg taggtgccac tgagtgtatc agtcccaagg      780
actctaccaa acccatcagt gaggtgctgt cagaaatgac aggcaacaac gtgggataca      840
cctttgaagt tattgggcat cttgaaacca tgattgatgc cctggcatcc tgccacatga      900
actatgggac cagcgtggtt gtaggagttc ctccatcagc caagatgctc acctatgacc      960
cgatgttgct cttcactgga cgcacatgga agggatgtgt ctttggaggt ttgaaaagca     1020
gagatgatgt cccaaaacta gtgactgagt tcctggcaaa gaaatttgac ctggaccagt     1080
tgataactca tgtcttacca tttaaaaaaa tcagtgaagg atttgagctg ctcaattcag     1140
gacaaagcat tcgaacggtc ctgacgtttt gagatccaaa gtggcaggag gtctgtgttg     1200
tcatggtgaa ctggagtttc tcttgtgaga gttccctcat ctgaaatcat gtatctgtct     1260
cacaaataca agcataagta gaagatttgt tgaagacata gaacccttat aaagaattat     1320
taacctttat aaacatttaa agtcttgtga gcacctggga attagtataa taacaatgtt     1380
aatatttttg atttacattt tgtaaggcta taattgtatc ttttaagaaa acatacactt     1440
ggatttctat gttgaaatgg agatttttaa gagttttaac cagctgctgc agatatatat     1500
ctcaaaacag atatagcgta taaagatata gtaaatgcat ctcctagagt aatattcact     1560
taacacattg aaactattat tttttagatt tgaatataaa tgtatttttt aaacacttgt     1620
tatgagttaa cttggattac attttgaaat cagttcattc catgatgcat attactggat     1680
tagattaaga aagacagaaa agattaaggg acgggcacat ttttcaacga ttaagaatca     1740
tcattacata acttggtgaa actgaaaaag tatatcatat gggtacacaa ggctatttgc     1800
cagcatatat taatatttta gaaaatattc cttttgtaat actgaatata aacatagagc     1860
tagaatcata ttatcatact tatcataatg ttcaatttga tacagtagaa ttgcaagtcc     1920
ttaagtccct attcactgtg cttagtagtg actccattta ataaaaagtg tttttagttt     1980
ttaacaacta cactgatgta tttatatata tttataacat gttaaaattt tttaaggaaa     2040
ttaaaaatta tataaaaaaa aaaaaaaaaa ctcgag                                2076

<210> 79
<211> 2790
<212> DNA
<213> Homo sapien
```

```
<400> 79
aagcagttga gtaggcagaa aaaagaacct cttcattaag gattaaaatg tataggccag      60
cacgtgtaac ttcgacttca agatttctga atccatatgt agtatgtttc attgtcgtcg     120
caggggtagt gatcctggca gtcaccatag ctctacttgt ttacttttta gcttttgatc     180
aaaaatctta cttttatagg agcagttttc aactcctaaa tgttgaatat aatagtcagt     240
taaattcacc agctacacag gaatacagga ctttgagtgg aagaattgaa tctctgatta     300
ctaaaacatt caaagaatca aatttaagaa atcagttcat cagagctcat gttgccaaac     360
tgaggcaaga tggtagtggt gtgagagcgg atgttgtcat gaaatttcaa ttcactagaa     420
ataacaatgg agcatcaatg aaaagcagaa ttgagtctgt tttacgacaa atgctgaata     480
actctggaaa cctggaaata aacccttcaa ctgagataac atcacttact gaccaggctg     540
cagcaaattg gcttattaat gaatgtgggg ccggtccaga cctaataaca ttgtctgagc     600
agagaatcct tggaggcact gaggctgagg agggaagctg gccgtggcaa gtcagtctgc     660
ggctcaataa tgcccaccac tgtggaggca gcctgatcaa taacatgtgg atcctgacag     720
cagctcactg cttcagaagc aactctaatc ctcgtgactg gattgccacg tctggtattt     780
ccacaacatt tcctaaacta agaatgagag taagaaatat tttaattcat aacaattata     840
aatctgcaac tcatgaaaat gacattgcac ttgtgagact tgagaacagt gtcaccttta     900
ccaaagatat ccatagtgtg tgtctcccag ctgctaccca gaatattcca cctggctcta     960
ctgcttatgt aacaggatgg ggcgctcaag aatatgctgg ccacacagtt ccagagctaa    1020
ggcaaggaca ggtcagaata ataagtaatg atgtatgtaa tgcaccacat agttataatg    1080
gagccatctt gtctggaatg ctgtgtgctg gagtacctca aggtggagtg gacgcatgtc    1140
agggtgactc tggtggccca ctagtacaag aagactcacg gcggctttgg tttattgtgg    1200
ggatagtaag ctggggagat cagtgtggcc tgccggataa gccaggagtg tatactcgag    1260
tgacagccta ccttgactgg attaggcaac aaactgggat ctagtgcaac aagtgcatcc    1320
ctgttgcaaa gtctgtatgc aggtgtgcct gtcttaaatt ccaaagcttt acatttcaac    1380
tgaaaaagaa actagaaatg tcctaattta acatcttgtt acataaatat ggtttaacaa    1440
acactgttta acctttcttt attattaaag gttttctatt ttctccagag aactatatga    1500
atgttgcata gtactgtggc tgtgtaacag aagaaacaca ctaaactaat tacaaagtta    1560
acaatttcat tacagttgtg ctaaatgccc gtagtgagaa gaacaggaac cttgagcatg    1620
tatagtagag gaacctgcac aggtctgatg ggtcagaggg gtcttctctg ggtttcactg    1680
aggatgagaa gtaagcaaac tgtggaaaca tgcaaaggaa aaagtgatag aataatattc    1740
aagacaaaaa gaacagtatg aggcaagaga aatagtatgt atttaaaatt tttggttact    1800
caatatctta tacttagtat gagtcctaaa attaaaaatg tgaaactgtt gtactatacg    1860
tataacctaa ccttaattat tctgtaagaa catgcttcca taggaaatag tggataattt    1920
tcagctattt aaggcaaaag ctaaaatagt tcactcctca actgagaccc aaagaattat    1980
agatattttt catgatgacc catgaaaaat atcactcatc tacataaagg agagactata    2040
tctattttat agagaagcta agaaatatac ctacacaaac ttgtcaggtg ctttacaact    2100
acatagtact ttttaacaac aaaataataa ttttaagaat gaaaatttta atcatcggga    2160
agaacgtccc actacagact tcctatcact ggcagttata tttttgagcg taaaagggtc    2220
gtcaaacgct aaatctaagt aatgaattga aagtttaaag agggggaaga gttggtttgc    2280
aaaggaaaag tttaaatagc ttaatatcaa tagaatgatc ctgaagacag aaaaaacttt    2340
gtcactcttc ctctctcatt ttctttctct ctctctcccc ttctcataca catgcctccc    2400
cgaccaaaga atataatgta aattaaatcc actaaaatgt aatggcatga aaatctctgt    2460
agtctgaatc actaatattc ctgagttttt atgagctcct agtacagcta aagtttgcct    2520
atgcatgatc atctatgcgt cagagcttcc tccttctaca agctaactcc ctgcatctgg    2580
gcatcaggac tgctccatac atttgctgaa aacttcttgt atttcctgat gtaaaattgt    2640
gcaaacacct acaataaagc catctacttt tagggaaagg gagttgaaaa tgcaaccaac    2700
tcttggcgaa ctgtacaaac aaatctttgc tatactttat ttcaaataaa ttctttttga    2760
aatgaaaaaa aaaaaaaaaa aaaactcgag                                     2790

<210> 80
<211> 1460
<212> DNA
<213> Homo sapien
```

```
     <400> 80                                                        60
ctcaaagcag ttgagtaggc agaaaaaaga acctcttcat taaggattaa aatgtatagg   120
ccagcacgtg taacttcgac ttcaagattt ctgaatccat atgtagtatg tttcattgtc   180
gtcgcagggg tagtgatcct ggcagtcacc atagctctac ttgtttactt tttagctttt   240
gatcaaaaat cttactttta taggagcagt tttcaactcc taaatgttga atataatagt   300
cagttaaatt caccagctac acaggaatac aggactttga gtggaagaat tgaatctctg   360
attactaaaa cattcaaaga atcaaattta agaaatcagt tcatcagagc tcatgttgcc   420
aaactgaggc aagatggtag tggtgtgaga gcggatgttg tcatgaaatt tcaattcact   480
agaaataaca atggagcatc aatgaaaagc agaattgagt ctgttttacg acaaatgctg   540
aataactctg gaaacctgga aataaaccct tcaactgaga taacatcact tactgaccag   600
gctgcagcaa attggcttat taatgaatgt ggggccggtc cagacctaat aacattgtct   660
gagcagagaa tccttggagg cactgaggct gaggagggaa gctggccgtg gcaagtcagt   720
ctgcggctca ataatgccca ccactgtgga ggcagcctga tcaataacat gtggatcctg   780
acagcagctc actgcttcag aagcaactct aatcctcgtg actggattgc cacgtctggt   840
atttccacaa catttcctaa actaagaatg agagtaagaa atattttaat tcataacaat   900
tataaatctg caactcatga aaatgacatt gcacttgtga gacttgagaa cagtgtcacc   960
tttaccaaag atatccatag tgtgtgtctc ccagctgcta cccagaatat tccacctggc  1020
tctactgctt atgtaacagg atggggcgct caagaatatg ctggccacac agttccagag  1080
ctaaggcaag gacaggtcag aataataagt aatgatgtat gtaatgcacc acatagttat  1140
aatggagcca tcttgtctgg aatgctgtgt gctggagtac ctcaaggtgg agtggacgca  1200
tgtcagggtg actctggtgg cccactagta caagaagact cacggcggct ttggtttatt  1260
gtggggatag taagctgggg agatcagtgt ggcctgccgg ataagccagg agtgtatact  1320
cgagtgacag cctaccttga ctggattagg caacaaactg ggatctagtg caacaagtgc  1380
atccctgttg caaagtctgt atgcaggtgt gcctgtctta aattccaaag ctttacattt  1440
caactgaaaa agaaactaga aatgtcctaa tttaacatct tgttacataa atatggttta  1460
acaaaaaaaa aaaaaaaaaa

     <210> 81
     <211> 386
     <212> PRT
     <213> Homo sapien

     <400> 81
Met Phe Ala Glu Ile Gln Ile Gln Asp Lys Asp Arg Met Gly Thr Ala
1               5                   10                  15
Gly Lys Val Ile Lys Cys Lys Ala Ala Val Leu Trp Glu Gln Lys Gln
            20                  25                  30
Pro Phe Ser Ile Glu Glu Ile Glu Val Ala Pro Pro Lys Thr Lys Glu
        35                  40                  45
Val Arg Ile Lys Ile Leu Ala Thr Gly Ile Cys Arg Thr Asp Asp His
    50                  55                  60
Val Ile Lys Gly Thr Met Val Ser Lys Phe Pro Val Ile Val Gly His
65                  70                  75                  80
Glu Ala Thr Gly Ile Val Glu Ser Ile Gly Glu Gly Val Thr Thr Val
                85                  90                  95
Lys Pro Gly Asp Lys Val Ile Pro Leu Phe Leu Pro Gln Cys Arg Glu
            100                 105                 110
Cys Asn Ala Cys Arg Asn Pro Asp Gly Asn Leu Cys Ile Arg Ser Asp
        115                 120                 125
Ile Thr Gly Arg Gly Val Leu Ala Asp Gly Thr Thr Arg Phe Thr Cys
    130                 135                 140
Lys Gly Lys Pro Val His His Phe Met Asn Thr Ser Thr Phe Thr Glu
145                 150                 155                 160
```

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Tyr Thr Val Val Asp Glu Ser Ser Val Ala Lys Ile Asp Asp Ala Ala
                165                 170                 175
Pro Pro Glu Lys Val Cys Leu Ile Gly Cys Gly Phe Ser Thr Gly Tyr
            180                 185                 190
Gly Ala Ala Val Lys Thr Gly Lys Val Lys Pro Gly Ser Thr Cys Val
        195                 200                 205
Val Phe Gly Leu Arg Gly Val Gly Leu Ser Val Ile Met Gly Cys Lys
    210                 215                 220
Ser Ala Gly Ala Ser Arg Ile Ile Gly Ile Asp Leu Asn Lys Asp Lys
225                 230                 235                 240
Phe Glu Lys Ala Met Ala Val Gly Ala Thr Glu Cys Ile Ser Pro Lys
                245                 250                 255
Asp Ser Thr Lys Pro Ile Ser Glu Val Leu Ser Glu Met Thr Gly Asn
            260                 265                 270
Asn Val Gly Tyr Thr Phe Glu Val Ile Gly His Leu Glu Thr Met Ile
        275                 280                 285
Asp Ala Leu Ala Ser Cys His Met Asn Tyr Gly Thr Ser Val Val Val
    290                 295                 300
Gly Val Pro Pro Ser Ala Lys Met Leu Thr Tyr Asp Pro Met Leu Leu
305                 310                 315                 320
Phe Thr Gly Arg Thr Trp Lys Gly Cys Val Phe Gly Gly Leu Lys Ser
                325                 330                 335
Arg Asp Asp Val Pro Lys Leu Val Thr Glu Phe Leu Ala Lys Lys Phe
            340                 345                 350
Asp Leu Asp Gln Leu Ile Thr His Val Leu Pro Phe Lys Lys Ile Ser
        355                 360                 365
Glu Gly Phe Glu Leu Leu Asn Ser Gly Gln Ser Ile Arg Thr Val Leu
    370                 375                 380
Thr Phe
385


<210> 82
<211> 418
<212> PRT
<213> Homo sapien


<400> 82
Met Tyr Arg Pro Ala Arg Val Thr Ser Thr Ser Arg Phe Leu Asn Pro
 1               5                  10                  15
Tyr Val Val Cys Phe Ile Val Val Ala Gly Val Val Ile Leu Ala Val
            20                  25                  30
Thr Ile Ala Leu Leu Val Tyr Phe Leu Ala Phe Asp Gln Lys Ser Tyr
        35                  40                  45
Phe Tyr Arg Ser Ser Phe Gln Leu Leu Asn Val Glu Tyr Asn Ser Gln
    50                  55                  60
Leu Asn Ser Pro Ala Thr Gln Glu Tyr Arg Thr Leu Ser Gly Arg Ile
65                  70                  75                  80
Glu Ser Leu Ile Thr Lys Thr Phe Lys Glu Ser Asn Leu Arg Asn Gln
                85                  90                  95
Phe Ile Arg Ala His Val Ala Lys Leu Arg Gln Asp Gly Ser Gly Val
            100                 105                 110
Arg Ala Asp Val Val Met Lys Phe Gln Phe Thr Arg Asn Asn Asn Gly
        115                 120                 125
Ala Ser Met Lys Ser Arg Ile Glu Ser Val Leu Arg Gln Met Leu Asn
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    130                 135                 140
Asn Ser Gly Asn Leu Glu Ile Asn Pro Ser Thr Glu Ile Thr Ser Leu
145                 150                 155                 160
Thr Asp Gln Ala Ala Ala Asn Trp Leu Ile Asn Glu Cys Gly Ala Gly
                165                 170                 175
Pro Asp Leu Ile Thr Leu Ser Glu Gln Arg Ile Leu Gly Gly Thr Glu
            180                 185                 190
Ala Glu Glu Gly Ser Trp Pro Trp Gln Val Ser Leu Arg Leu Asn Asn
        195                 200                 205
Ala His His Cys Gly Gly Ser Leu Ile Asn Asn Met Trp Ile Leu Thr
    210                 215                 220
Ala Ala His Cys Phe Arg Ser Asn Ser Asn Pro Arg Asp Trp Ile Ala
225                 230                 235                 240
Thr Ser Gly Ile Ser Thr Thr Phe Pro Lys Leu Arg Met Arg Val Arg
                245                 250                 255
Asn Ile Leu Ile His Asn Asn Tyr Lys Ser Ala Thr His Glu Asn Asp
            260                 265                 270
Ile Ala Leu Val Arg Leu Glu Asn Ser Val Thr Phe Thr Lys Asp Ile
        275                 280                 285
His Ser Val Cys Leu Pro Ala Ala Thr Gln Asn Ile Pro Pro Gly Ser
    290                 295                 300
Thr Ala Tyr Val Thr Gly Trp Gly Ala Gln Glu Tyr Ala Gly His Thr
305                 310                 315                 320
Val Pro Glu Leu Arg Gln Gly Gln Val Arg Ile Ile Ser Asn Asp Val
                325                 330                 335
Cys Asn Ala Pro His Ser Tyr Asn Gly Ala Ile Leu Ser Gly Met Leu
            340                 345                 350
Cys Ala Gly Val Pro Gln Gly Gly Val Asp Ala Cys Gln Gly Asp Ser
        355                 360                 365
Gly Gly Pro Leu Val Gln Glu Asp Ser Arg Arg Leu Trp Phe Ile Val
    370                 375                 380
Gly Ile Val Ser Trp Gly Asp Gln Cys Gly Leu Pro Asp Lys Pro Gly
385                 390                 395                 400
Val Tyr Thr Arg Val Thr Ala Tyr Leu Asp Trp Ile Arg Gln Gln Thr
                405                 410                 415
Gly Ile
```

<210> 83
<211> 418
<212> PRT
<213> Homo sapien

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<400> 83
Met Tyr Arg Pro Ala Arg Val Thr Ser Thr Ser Arg Phe Leu Asn Pro
1               5                   10                  15
Tyr Val Val Cys Phe Ile Val Val Ala Gly Val Val Ile Leu Ala Val
            20                  25                  30
Thr Ile Ala Leu Leu Val Tyr Phe Leu Ala Phe Asp Gln Lys Ser Tyr
        35                  40                  45
Phe Tyr Arg Ser Ser Phe Gln Leu Leu Asn Val Glu Tyr Asn Ser Gln
    50                  55                  60
Leu Asn Ser Pro Ala Thr Gln Glu Tyr Arg Thr Leu Ser Gly Arg Ile
65                  70                  75                  80
```

Glu Ser Leu Ile Thr Lys Thr Phe Lys Glu Ser Asn Leu Arg Asn Gln
85 90 95
Phe Ile Arg Ala His Val Ala Lys Leu Arg Gln Asp Gly Ser Gly Val
100 105 110
Arg Ala Asp Val Val Met Lys Phe Gln Phe Thr Arg Asn Asn Asn Gly
115 120 125
Ala Ser Met Lys Ser Arg Ile Glu Ser Val Leu Arg Gln Met Leu Asn
130 135 140
Asn Ser Gly Asn Leu Glu Ile Asn Pro Ser Thr Glu Ile Thr Ser Leu
145 150 155 160
Thr Asp Gln Ala Ala Ala Asn Trp Leu Ile Asn Glu Cys Gly Ala Gly
165 170 175
Pro Asp Leu Ile Thr Leu Ser Glu Gln Arg Ile Leu Gly Gly Thr Glu
180 185 190
Ala Glu Glu Gly Ser Trp Pro Trp Gln Val Ser Leu Arg Leu Asn Asn
195 200 205
Ala His His Cys Gly Gly Ser Leu Ile Asn Asn Met Trp Ile Leu Thr
210 215 220
Ala Ala His Cys Phe Arg Ser Asn Ser Asn Pro Arg Asp Trp Ile Ala
225 230 235 240
Thr Ser Gly Ile Ser Thr Thr Phe Pro Lys Leu Arg Met Arg Val Arg
245 250 255
Asn Ile Leu Ile His Asn Asn Tyr Lys Ser Ala Thr His Glu Asn Asp
260 265 270
Ile Ala Leu Val Arg Leu Glu Asn Ser Val Thr Phe Thr Lys Asp Ile
275 280 285
His Ser Val Cys Leu Pro Ala Ala Thr Gln Asn Ile Pro Pro Gly Ser
290 295 300
Thr Ala Tyr Val Thr Gly Trp Gly Ala Gln Glu Tyr Ala Gly His Thr
305 310 315 320
Val Pro Glu Leu Arg Gln Gly Gln Val Arg Ile Ile Ser Asn Asp Val
325 330 335
Cys Asn Ala Pro His Ser Tyr Asn Gly Ala Ile Leu Ser Gly Met Leu
340 345 350
Cys Ala Gly Val Pro Gln Gly Gly Val Asp Ala Cys Gln Gly Asp Ser
355 360 365
Gly Gly Pro Leu Val Gln Glu Asp Ser Arg Arg Leu Trp Phe Ile Val
370 375 380
Gly Ile Val Ser Trp Gly Asp Gln Cys Gly Leu Pro Asp Lys Pro Gly
385 390 395 400
Val Tyr Thr Arg Val Thr Ala Tyr Leu Asp Trp Ile Arg Gln Gln Thr
405 410 415

Gly Ile

<210> 84
<211> 489
<212> DNA
<213> Homo sapien

<400> 84
aaaagggtaa gcttgatgat taccaggaac gaatgaacaa aggggaaagg cttaatcaag 60
atcagctgga tgccgtttct aagtaccagg aagtcacaaa taatttggag tttgcaaaag 120
aattacagag gagtttcatg gcactaagtc aagatattca gaaaacaata aagaagacag 180

cacgtcggga gcagcttatg agagaagaag ctgaacagaa acgtttaaaa actgtacttg 240
agctacagta tgttttggac aaattgggag atgatgaagt gcggactgac ctgaaacaag 300
gtttgaatgg agtgccaata ttgtccgaag aggagttgtc attgttggat gaattctata 360
agctagtaga ccctgaacgg gacatgagct tgaggttgaa tgaacagtat gaacatgcct 420
ccattcacct gtgggacctg ctggaaggga aggaaaaacc tgtatgtgga accacctata 480
aagttctaa 489

<210> 85
<211> 304
<212> DNA
<213> Homo sapien

<400> 85
gggacctgga ggaggccacg ctgcagcatg aagccacagc agccaccctg aggaagaagc 60
acgcggacag cgtggccgag ctcggggagc agatcgacaa cctgcagcgg gtgaagcaga 120
agctggagaa ggagaagagc gagatgaaga tggagatcga tgacctcgct tgtaacatgg 180
aggtcatctc caaatctaag ggaaaccttg agaagatgtg ccgcacactg gaggaccaag 240
tgagtgagct gaagacccag gaggaggaac agcagcggct gatcaatgaa ctgactgcgc 300
agag 304

<210> 86
<211> 296
<212> DNA
<213> Homo sapien

<400> 86
gaaaatcctt cctttgaatg ggaatctcca agcagttgaa ttgggcgaaa aaagaacctc 60
ttccttaagg attaaaatgt ttagggcaac acgtgttact tccacttcca gatttctgaa 120
tccatatgtt gtatgtttcc ttgtcctccc aggggttgtg atcctggcag tccccatagc 180
tctacttgtt tactttttag cttttgatca aaaatcttac ttttattgga gcaatttcc 240
actcccaaat gttgaatata atagtccgtt taattccccc gcttcaccgg gaattc 296

<210> 87
<211> 904
<212> DNA
<213> Homo sapien

<400> 87
gtgtccagga aacgattcat gaacataaca agcttgctgc aaattcagat catctcatgc 60
agattcaaaa atgtgagttg gtcttgatcc acacctaccc agttggtgaa gacagccttg 120
tatctgatcg ttctaaaaaa gagttgtccc cggttttaac cagtgaagtt catagtgttc 180
gtgcaggacg gcatcttgct accaaattga atattttagt acagcaacat tttgacttgg 240
cttcaactac tattacaaat attccaatga aggaagaaca gcatgctaac acatctgcca 300
attatgatgt ggagctactt catcacaaag atgcacatgt agatttcctg aaaagtggtg 360
attcgcatct aggtggcggc agtcgagaag gctcgtttaa agaaacaata acattaaagt 420
ggtgtacacc aaggacaaat aacattgaat tacactattg tactggagct tatcggattt 480
cacctgtaga tgtaaatagt agaccttcct cctgccttac taattttctt ctaaatggtc 540
gttctgtttt attggaacaa ccacgaaagt caggttctaa agtcattagt catatgctta 600
gtagccatgg aggagagatt tttttgcacg tccttagcag ttctcgatcc attctagaag 660
atccaccttc aattagtgaa ggatgtggag gaagagttac agactaccgg attacagatt 720
ttggtgaatt tatgagggga aaacagatta actccttttc tacaccccag atataaaatc 780
gatggaagtc ttgaggtccc tttggaaccg agccaaaaga tcagttaaaa aaacataccc 840
gttactggcc tatgatttca aaaacccacc atttttaaca tgcaagcggt agttccgtta 900
acca 904

<210> 88
<211> 387
<212> DNA
<213> Homo sapien

<400> 88
cgtctctccc ccagtttgcc gttcacccgg agcgctcggg acttgccgat agtggtgacg 60
gcggcaacat gtctgtggct ttcgcggccc cgaggcagcg aggcaagggg gagatcactc 120
ccgctgcgat tcagaagatg ttggatgaca ataaccatct tattcagtgt ataatggact 180
ctcagaataa aggaaagacc tcagagtgtt ctcagtatca gcagatgttg cacacaaact 240
tggtatacct tgctacaata gcagattcta atcaaaatat gcagtctctt ttaccagcac 300
cacccacaca gaatatgcct atgggtcctg gagggatgaa tcagagcggg cctcccccac 360
ctccacgctc tcacaacatg ccttcaa 387

<210> 89
<211> 481
<212> DNA
<213> Homo sapien

<400> 89
tgttcttgga cctgcggtgc tatagagcag gctcttctag gttggcagtt gccatggaat 60
ctggacccaa aatgttggcc cccgtttgcc tggtggaaaa taacaatgag cagctattgg 120
tgaaccagca agctatacag attcttgaaa agatttctca gccagtggtg gtggtggcca 180
ttgtaggact gtaccgtaca gggaaatcct acttgatgaa ccatctggca ggacagaatc 240
atggcttccc tctgggctcc acggtgcagt ctgaaaccaa gggcatctgg atgtggtgcg 300
tgccccaccc atccaagcca aaccacaccc tggtccttct ggacaccgaa ggtctgggcg 360
atgtggaaaa gggtgaccct aagaatgact cctggatctt tgccctggct gtgctcctgt 420
gcagcacctt tgtctacaac agcatgagca ccatcaacca ccaggccctg gagcagctgc 480
a 481

<210> 90
<211> 491
<212> DNA
<213> Homo sapien

<400> 90
tgaaaactgt tcttggacct gcggtgctat agagcaggtt ggcagttgcc atggaatctg 60
gacccaaaat gttggccccc gtttgcctgg tggaaaataa caatgagcag ctattggtga 120
accagcaagc tatacagatt cttgaaaaga tttctcagcc agtggtggtg gtggccattg 180
taggactgta ccgtacaggg aaatcctact tgatgaacca tctggcagga cagaatcatg 240
gcttccctct gggctccacg gtgcagtctg aaaccaaggg catctggatg tggtgcgtgc 300
cccacccatc caagccaaac cacaccctgg tccttctgga caccgaaggt ctgggcgatg 360
tggaaaaggg tgaccctaag aatgactcct ggatctttgc cctggctgtg ctcctgtgca 420
gcacctttgt ctacaacagc atgagcacca tcaaccacca agccctggag cagctgcatt 480
atgtgacgga c 491

<210> 91
<211> 488
<212> DNA
<213> Homo sapien

<400> 91
ttcgacagtc agccgcatct tcttttgcgt cgccagccga gccacatcgc tcagacacca 60

tggggaaggt gaaggtcgga gtcaacggat ttggtcgtat tggggcgcctg gtcaccaggg 120
ctgcttttaa ctctggtaaa gtggatattg ttgccatcaa tgaccccttc attgacctca 180
actacatggt ttacatgttc caatatgatt ccacccatgg caaattccat ggcaccgtcg 240
aggctgagaa cgggaagctt gtcatcaatg gaaatcccat caccatcttc caggagcgag 300
atccctccaa aatcaagtgg ggcgatgctg gcgctgagta cgtcgtggag tccactggcg 360
tcttcaccac catggagaag gctggggctc atttgcaggg gggagccaaa agggtcatca 420
tctctgcccc tctgctgatg ccccatgttc gtcatgggtg tgaaccatga gaagtatgac 480
acagcctc 488

<210> 92
<211> 384
<212> DNA
<213> Homo sapien

<400> 92
gacagtcagc cgcatcttct tttgcgtcgc cagccgagcc acatcgctca gacaccatgg 60
ggaaggtgaa ggtcggagtc aacggatttg gtcgtattgg gcgcctggtc accagggctg 120
cttttaactc tggtaaagtg gatattgttg ccatcaatga ccccttcatt gacctcaact 180
acatggttta catgttccaa tatgattcca cccatggcaa attccatggc accgtcgagg 240
ctgagaacgg gaagcttgtc atcaatggaa atcccatcac catcttccag gagcgagatc 300
cctccaaaat caagtggggc gatactggcg ctgagtacgt cgtggagtcc actggcgtct 360
tcaccaccat ggagaaggct gggg 384

<210> 93
<211> 162
<212> PRT
<213> Homo sapien

<400> 93
Lys Gly Lys Leu Asp Asp Tyr Gln Glu Arg Met Asn Lys Gly Glu Arg
1 5 10 15
Leu Asn Gln Asp Gln Leu Asp Ala Val Ser Lys Tyr Gln Glu Val Thr
20 25 30
Asn Asn Leu Glu Phe Ala Lys Glu Leu Gln Arg Ser Phe Met Ala Leu
35 40 45
Ser Gln Asp Ile Gln Lys Thr Ile Lys Lys Thr Ala Arg Arg Glu Gln
50 55 60
Leu Met Arg Glu Glu Ala Glu Gln Lys Arg Leu Lys Thr Val Leu Glu
65 70 75 80
Leu Gln Tyr Val Leu Asp Lys Leu Gly Asp Asp Glu Val Arg Thr Asp
85 90 95
Leu Lys Gln Gly Leu Asn Gly Val Pro Ile Leu Ser Glu Glu Glu Leu
100 105 110
Ser Leu Leu Asp Glu Phe Tyr Lys Leu Val Asp Pro Glu Arg Asp Met
115 120 125
Ser Leu Arg Leu Asn Glu Gln Tyr Glu His Ala Ser Ile His Leu Trp
130 135 140
Asp Leu Leu Glu Gly Lys Glu Lys Pro Val Cys Gly Thr Thr Tyr Lys
145 150 155 160
Val Leu

<210> 94
<211> 100

```
     <212> PRT
     <213> Homo sapien

     <400> 94
Asp Leu Glu Glu Ala Thr Leu Gln His Glu Ala Thr Ala Ala Thr Leu
1               5                   10                  15
Arg Lys Lys His Ala Asp Ser Val Ala Glu Leu Gly Glu Gln Ile Asp
            20                  25                  30
Asn Leu Gln Arg Val Lys Gln Lys Leu Glu Lys Glu Lys Ser Glu Met
        35                  40                  45
Lys Met Glu Ile Asp Asp Leu Ala Cys Asn Met Glu Val Ile Ser Lys
    50                  55                  60
Ser Lys Gly Asn Leu Glu Lys Met Cys Arg Thr Leu Glu Asp Gln Val
65                  70                  75                  80
Ser Glu Leu Lys Thr Gln Glu Glu Glu Gln Gln Arg Leu Ile Asn Glu
                85                  90                  95

Leu Thr Ala Gln
            100

     <210> 95
     <211> 99
     <212> PRT
     <213> Homo sapien

     <400> 95
Lys Ile Leu Pro Leu Asn Gly Asn Leu Gln Ala Val Glu Leu Gly Glu
1               5                   10                  15
Lys Arg Thr Ser Ser Leu Arg Ile Lys Met Phe Arg Ala Thr Arg Val
            20                  25                  30
Thr Ser Thr Ser Arg Phe Leu Asn Pro Tyr Val Val Cys Phe Leu Val
        35                  40                  45
Leu Pro Gly Val Val Ile Leu Ala Val Pro Ile Ala Leu Leu Val Tyr
    50                  55                  60
Phe Leu Ala Phe Asp Gln Lys Ser Tyr Phe Tyr Trp Ser Asn Phe Pro
65                  70                  75                  80
Leu Pro Asn Val Glu Tyr Asn Ser Pro Phe Asn Ser Pro Ala Ser Pro
                85                  90                  95

Gly Ile Pro


     <210> 96
     <211> 257
     <212> PRT
     <213> Homo sapien

     <400> 96
Val Gln Glu Thr Ile His Glu His Asn Lys Leu Ala Ala Asn Ser Asp
1               5                   10                  15
His Leu Met Gln Ile Gln Lys Cys Glu Leu Val Leu Ile His Thr Tyr
            20                  25                  30
Pro Val Gly Glu Asp Ser Leu Val Ser Asp Arg Ser Lys Lys Glu Leu
        35                  40                  45
Ser Pro Val Leu Thr Ser Glu Val His Ser Val Arg Ala Gly Arg His
    50                  55                  60
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Leu Ala Thr Lys Leu Asn Ile Leu Val Gln Gln His Phe Asp Leu Ala
65 70 75 80
Ser Thr Thr Ile Thr Asn Ile Pro Met Lys Glu Glu Gln His Ala Asn
85 90 95
Thr Ser Ala Asn Tyr Asp Val Glu Leu Leu His His Lys Asp Ala His
100 105 110
Val Asp Phe Leu Lys Ser Gly Asp Ser His Leu Gly Gly Gly Ser Arg
115 120 125
Glu Gly Ser Phe Lys Glu Thr Ile Thr Leu Lys Trp Cys Thr Pro Arg
130 135 140
Thr Asn Asn Ile Glu Leu His Tyr Cys Thr Gly Ala Tyr Arg Ile Ser
145 150 155 160
Pro Val Asp Val Asn Ser Arg Pro Ser Ser Cys Leu Thr Asn Phe Leu
165 170 175
Leu Asn Gly Arg Ser Val Leu Leu Glu Gln Pro Arg Lys Ser Gly Ser
180 185 190
Lys Val Ile Ser His Met Leu Ser Ser His Gly Gly Glu Ile Phe Leu
195 200 205
His Val Leu Ser Ser Ser Arg Ser Ile Leu Glu Asp Pro Pro Ser Ile
210 215 220
Ser Glu Gly Cys Gly Gly Arg Val Thr Asp Tyr Arg Ile Thr Asp Phe
225 230 235 240
Gly Glu Phe Met Arg Gly Lys Gln Ile Asn Ser Phe Ser Thr Pro Gln
245 250 255

Ile

<210> 97
<211> 128
<212> PRT
<213> Homo sapien

<400> 97
Ser Leu Pro Gln Phe Ala Val His Pro Glu Arg Ser Gly Leu Ala Asp
1 5 10 15
Ser Gly Asp Gly Gly Asn Met Ser Val Ala Phe Ala Ala Pro Arg Gln
20 25 30
Arg Gly Lys Gly Glu Ile Thr Pro Ala Ala Ile Gln Lys Met Leu Asp
35 40 45
Asp Asn Asn His Leu Ile Gln Cys Ile Met Asp Ser Gln Asn Lys Gly
50 55 60
Lys Thr Ser Glu Cys Ser Gln Tyr Gln Gln Met Leu His Thr Asn Leu
65 70 75 80
Val Tyr Leu Ala Thr Ile Ala Asp Ser Asn Gln Asn Met Gln Ser Leu
85 90 95
Leu Pro Ala Pro Pro Thr Gln Asn Met Pro Met Gly Pro Gly Gly Met
100 105 110
Asn Gln Ser Gly Pro Pro Pro Pro Pro Arg Ser His Asn Met Pro Ser
115 120 125

<210> 98
<211> 159
<212> PRT
<213> Homo sapien

<400> 98
Phe Leu Asp Leu Arg Cys Tyr Arg Ala Gly Ser Ser Arg Leu Ala Val
1 5 10 15
Ala Met Glu Ser Gly Pro Lys Met Leu Ala Pro Val Cys Leu Val Glu
20 25 30
Asn Asn Asn Glu Gln Leu Leu Val Asn Gln Gln Ala Ile Gln Ile Leu
35 40 45
Glu Lys Ile Ser Gln Pro Val Val Val Val Ala Ile Val Gly Leu Tyr
50 55 60
Arg Thr Gly Lys Ser Tyr Leu Met Asn His Leu Ala Gly Gln Asn His
65 70 75 80
Gly Phe Pro Leu Gly Ser Thr Val Gln Ser Glu Thr Lys Gly Ile Trp
85 90 95
Met Trp Cys Val Pro His Pro Ser Lys Pro Asn His Thr Leu Val Leu
100 105 110
Leu Asp Thr Glu Gly Leu Gly Asp Val Glu Lys Gly Asp Pro Lys Asn
115 120 125
Asp Ser Trp Ile Phe Ala Leu Ala Val Leu Leu Cys Ser Thr Phe Val
130 135 140
Tyr Asn Ser Met Ser Thr Ile Asn His Gln Ala Leu Glu Gln Leu
145 150 155

<210> 99
<211> 147
<212> PRT
<213> Homo sapien

<400> 99
Met Glu Ser Gly Pro Lys Met Leu Ala Pro Val Cys Leu Val Glu Asn
1 5 10 15
Asn Asn Glu Gln Leu Leu Val Asn Gln Gln Ala Ile Gln Ile Leu Glu
20 25 30
Lys Ile Ser Gln Pro Val Val Val Val Ala Ile Val Gly Leu Tyr Arg
35 40 45
Thr Gly Lys Ser Tyr Leu Met Asn His Leu Ala Gly Gln Asn His Gly
50 55 60
Phe Pro Leu Gly Ser Thr Val Gln Ser Glu Thr Lys Gly Ile Trp Met
65 70 75 80
Trp Cys Val Pro His Pro Ser Lys Pro Asn His Thr Leu Val Leu Leu
85 90 95
Asp Thr Glu Gly Leu Gly Asp Val Glu Lys Gly Asp Pro Lys Asn Asp
100 105 110
Ser Trp Ile Phe Ala Leu Ala Val Leu Leu Cys Ser Thr Phe Val Tyr
115 120 125
Asn Ser Met Ser Thr Ile Asn His Gln Ala Leu Glu Gln Leu His Tyr
130 135 140
Val Thr Asp
145

<210> 100
<211> 124
<212> PRT
<213> Homo sapien

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<400> 100
Met Gly Lys Val Lys Val Gly Val Asn Gly Phe Gly Arg Ile Gly Arg
1               5                   10                  15
Leu Val Thr Arg Ala Ala Phe Asn Ser Gly Lys Val Asp Ile Val Ala
            20                  25                  30
Ile Asn Asp Pro Phe Ile Asp Leu Asn Tyr Met Val Tyr Met Phe Gln
        35                  40                  45
Tyr Asp Ser Thr His Gly Lys Phe His Gly Thr Val Glu Ala Glu Asn
    50                  55                  60
Gly Lys Leu Val Ile Asn Gly Asn Pro Ile Thr Ile Phe Gln Glu Arg
65                  70                  75                  80
Asp Pro Ser Lys Ile Lys Trp Gly Asp Ala Gly Ala Glu Tyr Val Val
                85                  90                  95
Glu Ser Thr Gly Val Phe Thr Thr Met Glu Lys Ala Gly Ala His Leu
            100                 105                 110
Gln Gly Gly Ala Lys Arg Val Ile Ile Ser Ala Pro
        115                 120

<210> 101
<211> 127
<212> PRT
<213> Homo sapien

<400> 101
Gln Ser Ala Ala Ser Ser Phe Ala Ser Pro Ala Glu Pro His Arg Ser
1               5                   10                  15
Asp Thr Met Gly Lys Val Lys Val Gly Val Asn Gly Phe Gly Arg Ile
            20                  25                  30
Gly Arg Leu Val Thr Arg Ala Ala Phe Asn Ser Gly Lys Val Asp Ile
        35                  40                  45
Val Ala Ile Asn Asp Pro Phe Ile Asp Leu Asn Tyr Met Val Tyr Met
    50                  55                  60
Phe Gln Tyr Asp Ser Thr His Gly Lys Phe His Gly Thr Val Glu Ala
65                  70                  75                  80
Glu Asn Gly Lys Leu Val Ile Asn Gly Asn Pro Ile Thr Ile Phe Gln
                85                  90                  95
Glu Arg Asp Pro Ser Lys Ile Lys Trp Gly Asp Thr Gly Ala Glu Tyr
            100                 105                 110
Val Val Glu Ser Thr Gly Val Phe Thr Thr Met Glu Lys Ala Gly
        115                 120                 125

<210> 102
<211> 1225
<212> DNA
<213> Homo sapien

<400> 102
atggcggcgc ggtcgtcgtc gggggtggcg gcggcagagg gggcggcggc cctggcggca      60
gcggagacgg cagccgtgac ggtggcagcg gcggcgcggg acctgggcct gggggaatga     120
ggcggccgcg gcgggccagc ggcggagccg tgtagcggag aagctccccc tccctgcttc     180
ccttggccga gccgggggcg cgcgcgcacg cggccgtcca gagcgggctc cccacccctc     240
gactcctgcg acccgcaccg cacccccacc cgggcccgga ggatgatgaa gctcaagtcg     300
aaccagaccc gcacctacga cggcgacggc tacaagaagc gggccgcatg cctgtgtttc     360
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cgcagcgaga gcgaggagga ggtgctactc gtgagcagta gtcgccatcc agacagatgg      420
attgtccctg gaggaggcat ggagcccgag gaggagccaa gtgtggcagc agttcgtgaa      480
gtctgtgagg aggctggagt aaaagggaca ttgggaagat tagttggaat tttgagaac       540
caggagagga agcacaggac gtatgtctat gtgctcattg tcactgaagt gctggaagac      600
tgggaagatt cagttaacat tggaaggaag agggaatggt ttaaaataga agacgccata      660
aaagtgctgc agtatcacaa acccgtgcag gcatcatatt ttgaaacatt gaggcaaggc      720
tactcagcca acaatggcac cccagtcgtg gccaccacat actcggtttc tgctcagagc      780
tcgatgtcag gcatcagatg actgaagact tcctgtaaga gaaatggaaa ttggaaacta      840
gactgaagtg caaatcttcc ctctcaccct ggctctttcc acttctcaca ggcctcctct      900
ttcaaataag gcatggtggg cagcaaagaa agggtgtatt gataatgttg ctgtttggtg      960
ttaagtgatg ggctttttc ttctgttttt attgagggtg ggggttgggt gtgtaatttg      1020
taagtacttt tgtgcatgat ctgtccctcc ctcttcccac ccctgcagtc ctctgaagag     1080
aggccaacag ccttcccctg ccttggattc tgaagtgttc ctgtttgtct tatcctggcc     1140
ctggccagac gttttctttg atttttaatt tttttttttt attaaaagat accagtatga     1200
gaaaaaaaaa aaaaaaaaac tcgag                                           1225

      <210> 103
      <211> 741
      <212> DNA
      <213> Homo sapien

      <400> 103
agaaacctca atcggattca gcaaaggaat ggtgttatta tcactacata ccaaatgtta       60
atcaataact ggcagcaact ttcaagcttt aggggccaag agtttgtgtg ggactatgtc      120
atcctcgatg aagcacataa aataaaaacc tcatctacta agtcagcaat atgtgctcgt      180
gctattcctg caagtaatcg cctcctcctc acaggaaccc caatccagaa taatttacaa      240
gaactatggt ccctatttga ttttgcttgt caagggtccc tgctgggaac attaaaaact      300
tttaagatgg agtatgaaaa tcctattact agagcaagag agaaggatgc taccccagga      360
gaaaaagcct tgggatttaa aatatctgaa aacttaatgg caatcataaa accctatttt      420
ctcaggagga ctaaagaaga cgtacagaag aaaaagtcaa gcaacccaga ggccagactt      480
aatgaaaaga atccagatgt tgatgccatt tgtgaaatgc cttccctttc caggagaaat      540
gatttaatta tttggatacg acttgtgcct ttacaagaag aaatatacag gaaatttgtg      600
tctttagatc atatcaagga gttgctaatg gagacgcgct cacctttggc tgagctaggt      660
gtcttaaaga agctgtgtga tcatcctagg ctgctgtctg cacgggcttg ttgtttgcta      720
aatcttggga cattctctgc t                                                741

      <210> 104
      <211> 321
      <212> DNA
      <213> Homo sapien

      <400> 104
ttgctctgcg tcatcaaaga caccaaactg ctgtgctata aaagttccaa ggaccagcag       60
cctcagatgg aactgccact ccaaggctgt aacattacgt acatcccgaa agacagcaaa      120
aagaagaagc acgagctgaa gattactcag cagggcacgg acccgcttgt tctcgccgtc      180
cagagcaagg aacaggccga gcagtggctg aaggtgatca aagaagccta cagtggttgt      240
agtggccccg tggattcaga gtgtcctcct ccaccaagct ccccggtgca caaggcagaa      300
ctggagaaga aactgtcttc a                                                321

      <210> 105
      <211> 389
      <212> DNA
      <213> Homo sapien
      <400> 105
cagcactggc cacactataa aattcaggtt cagaaaaaca gggtaagtca cagacagcaa        60
cgcttccagc atttattttc tttgcaccca tgggcaattt gagaaaattt acctttagaa       120
cgaactctgt taaaggtaca gacagtacaa tactttttat tcagaaggtt tctgcataaa       180
ggtgatagtc ttttgactta atatattatt gtctcctgcc ttgtgtttct ggaatgaatg       240
aaggtcatta tttagaagat aatctgggtt gtatttgtgt cgtcagattg aattttcatt       300
gcacatgcta cttaatgtct ttaccaaata ataacaaagg gaaagaaaac caaatataga       360
tgtataataa ggaaaagctg gcctataga                                         389

      <210> 106
      <211> 446
      <212> DNA
      <213> Homo sapien

      <400> 106
gccacatttg ccctggtcat agtttaaaca ccaggtcctg tgtcacatct ttttggtgcc        60
acaagtatca ctccattgtt cagagagtaa tgtattagtt ctgcccaatt cattcttcac       120
ttttatttct tccatttcat tagcatttat atcagctcaa gaagttaagg ttagaaaatt       180
ttccacttca aattttcagt acagaaatgt gctgtgatgt ttgacaagac tatttcatag       240
taagtgagtt aatgtttatt ggcctctgct ctcctctgtg tcagacctag gaagcctgag       300
gattacttag ttgttctgtc tctgggtcca caggcagaat ttggcccatc caaagactgg       360
ccaagtgcca aaaaaaggcc tgattaggcc ctgaaattca gtgaaattct gcctgaagaa       420
acctcttatt gaatttgaaa accata                                            446

      <210> 107
      <211> 467
      <212> DNA
      <213> Homo sapien

      <400> 107
ccgccgctgc cgtcgccttc ctgggattgg agtctcgagc tttcttcgtt cgttcgccgg        60
cgggttcgcg cccttctcgc gcctcggggc tgcgaggctg gggaaggggt tggagggggc       120
tgttgatcgc cgcgtttaag ttgcgctcgg ggcggccatg tcggccggcg aggtcgagcg       180
cctagtgtcg gagctgagcg gcgggaccgg aggggatgag gaggaagagt ggctctatgg       240
cgatgaagat gaagttgaaa ggccagaaga agaaaatgcc agtgctaatc ctccatctgg       300
aattgaagat gaaactgctg aaaatggtgt accaaaaccg aaagtgactg agaccgaaga       360
tgatagtgat agtgacagcg atgatgatga agatgatgtg catgtcacta taggagacat       420
taaaacggga gcaccacagt atgggagtta tggtacagca cctgtaa                     467

      <210> 108
      <211> 491
      <212> DNA
      <213> Homo sapien

      <400> 108
gaaagataca acttccccaa cccaaacccg tttgtggagg acgacatgga taagaatgaa        60
atcgcctctg ttgcgtaccg ttaccgcagg tggaagcttg gagatgatat tgaccttatt       120
gtccgttgtg agcacgatgg cgtcatgact ggagccaacg gggaagtgtc cttcatcaac       180
atcaagacac tcaatgagtg ggattccagg cactgtaatg gcgttgactg gcgtcagaag       240
ctggactctc agcgaggggc tgtcattgcc acggagctga agaacaacag ctacaagttg       300
gcccggtgga cctgctgtgc tttgctggct ggatctgagt acctcaagct tggttatgtg       360
tctcggtacc acgtgaaaga ctcctcacgc cacgtcatcc taggcaccca gcagttcaag       420
cctaatgagt ttgccagcca gatcaacctg agcgtggaga atgcctgagg cattttacgc       480
tgcgtcattg a                                                            491
```

<210> 109
<211> 489
<212> DNA
<213> Homo sapien

<400> 109
ctcagatagt actgaaccct ttatcaacta tgtttttca gtctgacaac caaggcggct 60
actaagtgac taaggggcag gtagtataca gtgtggataa gcaggacaaa ggggtgattc 120
acatcccagg caggacagag caggagatca tgagatttca tcactcagga tggcttgtga 180
tttattttat tttattcttt tttttttttg agatggagtc tcactcttgc ccaggctgga 240
gtgcagtggt gcgatcttgg ctcactgcaa cctctgcctc ctgggttcaa gcagttctcc 300
tgcctcagcc tcccaagtag ctgggattac aggcgtccgc caccatgccc agccaatttt 360
tgtactttta gtagagatgg ggtttcacca tgttggccag gctggtctcg aactcctgac 420
ctcaggtgat ccactcgcct cggcctccca aagtgctggg attataggca tgcgccacca 480
tgcccgggc 489

<210> 110
<211> 391
<212> DNA
<213> Homo sapien

<400> 110
gcggagtccg ctggctgacc cgagcgctgg tctccgccgg gaaccctggg gcatggagag 60
gtctgagtac ctcggccgcg gcgcacgctg catcgcggag ccaggctgcc gctgtcccag 120
tggagttcca ggagcaccac ctgagtgagg tgcagaatat ggcatctgag gagaagctgg 180
agcaggtgct gagttccatg aaggagaaca aagtggccat cattggaaag attcataccc 240
cgatggagta taagggggag ctagcctcct atgatatgcg gctgaggcgt aagttggact 300
tatttgccaa cgtaatccat gtgaagtcac ttcctgggta tatgactcgg cacaacaatc 360
tagacctggt gatcattcga gagcagacag a 391

<210> 111
<211> 172
<212> PRT
<213> Homo sapien

<400> 111
Met Met Lys Leu Lys Ser Asn Gln Thr Arg Thr Tyr Asp Gly Asp Gly
1 5 10 15
Tyr Lys Lys Arg Ala Ala Cys Leu Cys Phe Arg Ser Glu Ser Glu Glu
20 25 30
Glu Val Leu Leu Val Ser Ser Ser Arg His Pro Asp Arg Trp Ile Val
35 40 45
Pro Gly Gly Gly Met Glu Pro Glu Glu Glu Pro Ser Val Ala Ala Val
50 55 60
Arg Glu Val Cys Glu Glu Ala Gly Val Lys Gly Thr Leu Gly Arg Leu
65 70 75 80
Val Gly Ile Phe Glu Asn Gln Glu Arg Lys His Arg Thr Tyr Val Tyr
85 90 95
Val Leu Ile Val Thr Glu Val Leu Glu Asp Trp Glu Asp Ser Val Asn
100 105 110
Ile Gly Arg Lys Arg Glu Trp Phe Lys Ile Glu Asp Ala Ile Lys Val
115 120 125
Leu Gln Tyr His Lys Pro Val Gln Ala Ser Tyr Phe Glu Thr Leu Arg

```
    130                     135                     140
Gln Gly Tyr Ser Ala Asn Asn Gly Thr Pro Val Val Ala Thr Thr Tyr
145                     150                     155                 160
Ser Val Ser Ala Gln Ser Ser Met Ser Gly Ile Arg
                165                     170

      <210> 112
      <211> 247
      <212> PRT
      <213> Homo sapien

      <400> 112
Arg Asn Leu Asn Arg Ile Gln Gln Arg Asn Gly Val Ile Ile Thr Thr
 1               5                  10                  15
Tyr Gln Met Leu Ile Asn Asn Trp Gln Gln Leu Ser Ser Phe Arg Gly
            20                  25                  30
Gln Glu Phe Val Trp Asp Tyr Val Ile Leu Asp Glu Ala His Lys Ile
        35                  40                  45
Lys Thr Ser Ser Thr Lys Ser Ala Ile Cys Ala Arg Ala Ile Pro Ala
    50                  55                  60
Ser Asn Arg Leu Leu Leu Thr Gly Thr Pro Ile Gln Asn Asn Leu Gln
65                  70                  75                  80
Glu Leu Trp Ser Leu Phe Asp Phe Ala Cys Gln Gly Ser Leu Leu Gly
                85                  90                  95
Thr Leu Lys Thr Phe Lys Met Glu Tyr Glu Asn Pro Ile Thr Arg Ala
            100                 105                 110
Arg Glu Lys Asp Ala Thr Pro Gly Glu Lys Ala Leu Gly Phe Lys Ile
        115                 120                 125
Ser Glu Asn Leu Met Ala Ile Ile Lys Pro Tyr Phe Leu Arg Arg Thr
    130                 135                 140
Lys Glu Asp Val Gln Lys Lys Lys Ser Ser Asn Pro Glu Ala Arg Leu
145                 150                 155                 160
Asn Glu Lys Asn Pro Asp Val Asp Ala Ile Cys Glu Met Pro Ser Leu
                165                 170                 175
Ser Arg Arg Asn Asp Leu Ile Ile Trp Ile Arg Leu Val Pro Leu Gln
            180                 185                 190
Glu Glu Ile Tyr Arg Lys Phe Val Ser Leu Asp His Ile Lys Glu Leu
        195                 200                 205
Leu Met Glu Thr Arg Ser Pro Leu Ala Glu Leu Gly Val Leu Lys Lys
    210                 215                 220
Leu Cys Asp His Pro Arg Leu Leu Ser Ala Arg Ala Cys Cys Leu Leu
225                 230                 235                 240
Asn Leu Gly Thr Phe Ser Ala
                245

      <210> 113
      <211> 107
      <212> PRT
      <213> Homo sapien

      <400> 113
Leu Leu Cys Val Ile Lys Asp Thr Lys Leu Leu Cys Tyr Lys Ser Ser
 1               5                  10                  15
Lys Asp Gln Gln Pro Gln Met Glu Leu Pro Leu Gln Gly Cys Asn Ile
```

```
            20                  25                  30
Thr Tyr Ile Pro Lys Asp Ser Lys Lys Lys Lys His Glu Leu Lys Ile
        35                  40                  45
Thr Gln Gln Gly Thr Asp Pro Leu Val Leu Ala Val Gln Ser Lys Glu
    50                  55                  60
Gln Ala Glu Gln Trp Leu Lys Val Ile Lys Glu Ala Tyr Ser Gly Cys
65                  70                  75                  80
Ser Gly Pro Val Asp Ser Glu Cys Pro Pro Pro Pro Ser Ser Pro Val
                85                  90                  95
His Lys Ala Glu Leu Glu Lys Lys Leu Ser Ser
            100                 105
```

<210> 114
<211> 155
<212> PRT
<213> Homo sapien

<400> 114

```
Glu Arg Tyr Asn Phe Pro Asn Pro Asn Pro Phe Val Glu Asp Asp Met
1               5                   10                  15
Asp Lys Asn Glu Ile Ala Ser Val Ala Tyr Arg Tyr Arg Arg Trp Lys
            20                  25                  30
Leu Gly Asp Asp Ile Asp Leu Ile Val Arg Cys Glu His Asp Gly Val
        35                  40                  45
Met Thr Gly Ala Asn Gly Glu Val Ser Phe Ile Asn Ile Lys Thr Leu
    50                  55                  60
Asn Glu Trp Asp Ser Arg His Cys Asn Gly Val Asp Trp Arg Gln Lys
65                  70                  75                  80
Leu Asp Ser Gln Arg Gly Ala Val Ile Ala Thr Glu Leu Lys Asn Asn
                85                  90                  95
Ser Tyr Lys Leu Ala Arg Trp Thr Cys Cys Ala Leu Leu Ala Gly Ser
            100                 105                 110
Glu Tyr Leu Lys Leu Gly Tyr Val Ser Arg Tyr His Val Lys Asp Ser
        115                 120                 125
Ser Arg His Val Ile Leu Gly Thr Gln Gln Phe Lys Pro Asn Glu Phe
    130                 135                 140
Ala Ser Gln Ile Asn Leu Ser Val Glu Asn Ala
145                 150                 155
```

<210> 115
<211> 129
<212> PRT
<213> Homo sapien

<400> 115

```
Gly Val Arg Trp Leu Thr Arg Ala Leu Val Ser Ala Gly Asn Pro Gly
1               5                   10                  15
Ala Trp Arg Gly Leu Ser Thr Ser Ala Ala Ala His Ala Ala Ser Arg
            20                  25                  30
Ser Gln Ala Ala Ala Val Pro Val Glu Phe Gln Glu His His Leu Ser
        35                  40                  45
Glu Val Gln Asn Met Ala Ser Glu Glu Lys Leu Glu Gln Val Leu Ser
    50                  55                  60
Ser Met Lys Glu Asn Lys Val Ala Ile Ile Gly Lys Ile His Thr Pro
```

```
65                  70                  75                  80
Met Glu Tyr Lys Gly Glu Leu Ala Ser Tyr Asp Met Arg Leu Arg Arg
                85                  90                  95
Lys Leu Asp Leu Phe Ala Asn Val Ile His Val Lys Ser Leu Pro Gly
            100                 105                 110
Tyr Met Thr Arg His Asn Asn Leu Asp Leu Val Ile Ile Arg Glu Gln
        115                 120                 125
Thr
```

```
<210> 116
<211> 550
<212> DNA
<213> Homo sapien

<400> 116
gaattcggca ccagcctcag agcccccag cccggctacc accccctgcg gaaaggtacc      60
catctgcatt cctgcccgtc gggacctggt ggacagtcca gcctccttgg cctctagcct     120
tggctcaccg ctgcctagag ccaaggagct catcctgaat gaccttcccg ccagcactcc     180
tgcctccaaa tcctgtgact cctccccgcc ccaggacgct tccaccccca ggcccagctc     240
ggccagtcac ctctgccagc ttgctgccaa gccagcacct tccacggaca gcgtcgccct     300
gaggagcccc ctgactctgt ccagtccctt caccacgtcc ttcagcctgg gctcccacag     360
cactctcaac ggagacctct ccgtgcccag ctcctacgtc agcctccacc tgtcccccca     420
ggtcagcagc tctgtggtgt acggacgctc ccccgtgatg gcatttgagt ctcatcccca     480
tctccgaggg tcatccgtct cttcctccct acccagcatc cctgggggaa agccggccta     540
ctccttccac                                                            550

<210> 117
<211> 154
<212> DNA
<213> Homo sapien

<400> 117
ttctgaggga aagccgagtg gagtgggcga cccggcggcg gtgacaatga gttttcttgg      60
aggcttttt ggtcccattt gtgagattga tgttgccctt aatgatgggg aaaccaggaa     120
aatggcagaa atgaaaactg aggatggcaa agta                                 154

<210> 118
<211> 449
<212> DNA
<213> Homo sapien

<400> 118
gaattcggca ccagggcccg cagcccgagt gtcgccgcca tggcttcgcc gcagctctgc      60
cgcgcgctgg tgtcggcgca atgggtggcg gaggcgctgc gggccccgcg cgctgggcag     120
cctctgcagc tgctggacgc ctcctggtac ctgccgaagc tggggcgcga cgcgcgacgc     180
gagttcgagg agcgccacat cccgggcgcc gctttcttcg acatcgacca gtgcagcgac     240
cgcacctcgc cctacgacca catgctgccc ggggccgagc atttcgcgga gtacgcaggc     300
cgcctgggcg tgggcgcggc cacccacgtc gtgatctacg acgccagcga ccagggcctc     360
tactccgccc cgcgcgtctg gtggatgttc cgcgccttcg gccaccacgc cgtgtcactg     420
cttgatggcg gcctccgcca ctggctgcg                                       449

<210> 119
<211> 642
```

<212> DNA
<213> Homo sapien

<400> 119
gaattcggca cgagcagtaa cccgaccgcc gctggtcttc gctggacacc atgaatcaca 60
ctgtccaaac cttcttctct cctgtcaaca gtggccagcc ccccaactat gagatgctca 120
aggaggagca cgaggtggct gtgctggggg cgccccacaa ccctgctccc ccgacgtcca 180
ccgtgatcca catccgcagc gagacctccg tgcccgacca tgtcgtctgg tccctgttca 240
acaccctctt catgaacccc tgctgcctgg gcttcatagc attcgcctac tccgtgaagt 300
ctagggacag gaagatggtt ggcgacgtga ccggggccca ggcctatgcc tccaccgcca 360
agtgcctgaa catctgggcc ctgattctgg gcatcctcat gaccattctg ctcatcgtca 420
tcccagtgct gatcttccag gcctatggat agatcaggag gcatcactga ggccaggagc 480
tctgcccatg acctgtatcc cacgtactcc aacttccatt cctcgccctg cccccggagc 540
cgagtcctgt atcagccctt tatcctcaca cgcttttcta caatggcatt caataaagtg 600
cacgtgtttc tggtgaaaaa aaaaaaaaaa aaaaaactcg ag 642

<210> 120
<211> 603
<212> DNA
<213> Homo sapien

<400> 120
gaattcggca cgagccacaa cagccactac gactgcatcc actggatcca cggccacccc 60
gtcctccacc ccgggaacag ctccccctcc caaagtgctg accagcccgg ccaccacacc 120
catgtccacc atgtccacaa tccacacctc ctctactcca gagaccaccc acacctccac 180
agtgctgacc accacagcca ccatgacaag ggccaccaat tccacggcca caccctcctc 240
cactctgggg acgacccgga tcctcactga gctgaccaca acagccacta caactgcagc 300
cactggatcc acggccaccc tgtcctccac cccagggacc acctggatcc tcacagagcc 360
gagcactata gccaccgtga tggtgcccac cggttccacg gccaccgcct cctccactct 420
gggaacagct cacaccccca aagtggtgac caccatggcc actatgccca cagccactgc 480
ctccacggtt cccagctcgt ccaccgtggg gaccacccgc acccctgcag tgctccccag 540
cagcctgcca accttcagcg tgtccactgt gtcctcctca gtcctcacca ccctgagacc 600
cac 603

<210> 121
<211> 178
<212> PRT
<213> Homo sapien

<400> 121
Ser Glu Pro Pro Ser Pro Ala Thr Thr Pro Cys Gly Lys Val Pro Ile
1 5 10 15
Cys Ile Pro Ala Arg Arg Asp Leu Val Asp Ser Pro Ala Ser Leu Ala
20 25 30
Ser Ser Leu Gly Ser Pro Leu Pro Arg Ala Lys Glu Leu Ile Leu Asn
35 40 45
Asp Leu Pro Ala Ser Thr Pro Ala Ser Lys Ser Cys Asp Ser Ser Pro
50 55 60
Pro Gln Asp Ala Ser Thr Pro Arg Pro Ser Ser Ala Ser His Leu Cys
65 70 75 80
Gln Leu Ala Ala Lys Pro Ala Pro Ser Thr Asp Ser Val Ala Leu Arg
85 90 95
Ser Pro Leu Thr Leu Ser Ser Pro Phe Thr Thr Ser Phe Ser Leu Gly
100 105 110

```
Ser His Ser Thr Leu Asn Gly Asp Leu Ser Val Pro Ser Ser Tyr Val
        115                 120                 125
Ser Leu His Leu Ser Pro Gln Val Ser Ser Ser Val Val Tyr Gly Arg
    130                 135                 140
Ser Pro Val Met Ala Phe Glu Ser His Pro His Leu Arg Gly Ser Ser
145                 150                 155                 160
Val Ser Ser Ser Leu Pro Ser Ile Pro Gly Gly Lys Pro Ala Tyr Ser
                165                 170                 175

Phe His


      <210> 122
      <211> 36
      <212> PRT
      <213> Homo sapien

      <400> 122
Met Ser Phe Leu Gly Gly Phe Phe Gly Pro Ile Cys Glu Ile Asp Val
 1               5                  10                  15
Ala Leu Asn Asp Gly Glu Thr Arg Lys Met Ala Glu Met Lys Thr Glu
            20                  25                  30

Asp Gly Lys Val
        35


      <210> 123
      <211> 136
      <212> PRT
      <213> Homo sapien

      <400> 123
Met Ala Ser Pro Gln Leu Cys Arg Ala Leu Val Ser Ala Gln Trp Val
 1               5                  10                  15
Ala Glu Ala Leu Arg Ala Pro Arg Ala Gly Gln Pro Leu Gln Leu Leu
            20                  25                  30

Asp Ala Ser Trp Tyr Leu Pro Lys Leu Gly Arg Asp Ala Arg Arg Glu
        35                  40                  45

Phe Glu Glu Arg His Ile Pro Gly Ala Ala Phe Phe Asp Ile Asp Gln
    50                  55                  60
Cys Ser Asp Arg Thr Ser Pro Tyr Asp His Met Leu Pro Gly Ala Glu
65                  70                  75                  80
His Phe Ala Glu Tyr Ala Gly Arg Leu Gly Val Gly Ala Ala Thr His
                85                  90                  95

Val Val Ile Tyr Asp Ala Ser Asp Gln Gly Leu Tyr Ser Ala Pro Arg
            100                 105                 110

Val Trp Trp Met Phe Arg Ala Phe Gly His His Ala Val Ser Leu Leu
        115                 120                 125

Asp Gly Gly Leu Arg His Trp Leu
    130                 135

      <210> 124
      <211> 133
      <212> PRT
      <213> Homo sapien
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```
<400> 124
Met Asn His Thr Val Gln Thr Phe Phe Ser Pro Val Asn Ser Gly Gln
1               5                   10                  15
Pro Pro Asn Tyr Glu Met Leu Lys Glu Glu His Glu Val Ala Val Leu
            20                  25                  30
Gly Ala Pro His Asn Pro Ala Pro Pro Thr Ser Thr Val Ile His Ile
        35                  40                  45
Arg Ser Glu Thr Ser Val Pro Asp His Val Val Trp Ser Leu Phe Asn
    50                  55                  60
Thr Leu Phe Met Asn Pro Cys Cys Leu Gly Phe Ile Ala Phe Ala Tyr
65                  70                  75                  80
Ser Val Lys Ser Arg Asp Arg Lys Met Val Gly Asp Val Thr Gly Ala
                85                  90                  95
Gln Ala Tyr Ala Ser Thr Ala Lys Cys Leu Asn Ile Trp Ala Leu Ile
            100                 105                 110
Leu Gly Ile Leu Met Thr Ile Leu Leu Ile Val Ile Pro Val Leu Ile
        115                 120                 125
Phe Gln Ala Tyr Gly
    130

<210> 125
<211> 195
<212> PRT
<213> Homo sapien

<400> 125
Thr Thr Ala Thr Thr Thr Ala Ser Thr Gly Ser Thr Ala Thr Pro Ser
1               5                   10                  15
Ser Thr Pro Gly Thr Ala Pro Pro Pro Lys Val Leu Thr Ser Pro Ala
            20                  25                  30
Thr Thr Pro Met Ser Thr Met Ser Thr Ile His Thr Ser Ser Thr Pro
        35                  40                  45
Glu Thr Thr His Thr Ser Thr Val Leu Thr Thr Thr Ala Thr Met Thr
    50                  55                  60
Arg Ala Thr Asn Ser Thr Ala Thr Pro Ser Ser Thr Leu Gly Thr Thr
65                  70                  75                  80
Arg Ile Leu Thr Glu Leu Thr Thr Thr Ala Thr Thr Thr Ala Ala Thr
                85                  90                  95
Gly Ser Thr Ala Thr Leu Ser Ser Thr Pro Gly Thr Thr Trp Ile Leu
            100                 105                 110
Thr Glu Pro Ser Thr Ile Ala Thr Val Met Val Pro Thr Gly Ser Thr
        115                 120                 125
Ala Thr Ala Ser Ser Thr Leu Gly Thr Ala His Thr Pro Lys Val Val
    130                 135                 140
Thr Thr Met Ala Thr Met Pro Thr Ala Thr Ala Ser Thr Val Pro Ser
145                 150                 155                 160
Ser Ser Thr Val Gly Thr Thr Arg Thr Pro Ala Val Leu Pro Ser Ser
                165                 170                 175
Leu Pro Thr Phe Ser Val Ser Thr Val Ser Ser Ser Val Leu Thr Thr
            180                 185                 190
Leu Arg Pro
        195

<210> 126
```

```
<211> 509
<212> DNA
<213> Homo sapien

<400> 126
gaattcggca cgagccaagt accccctgag gaatctgcag cctgcatctg agtacaccgt      60
atccctcgtg gccataaagg gcaaccaaga gagccccaaa gccactggag tctttaccac     120
actgcagcct gggagctcta ttccacctta caacaccgag gtgactgaga ccaccattgt     180
gatcacatgg acgcctgctc caagaattgg ttttaagctg ggtgtacgac caagccaggg     240
aggagaggca ccacgagaag tgacttcaga ctcaggaagc atcgttgtgt ccggcttgac     300
tccaggagta gaatacgtct acaccatcca agtcctgaga gatggacagg aaagagatgc     360
gccaattgta aacaaagtgg tgacaccatt gtctccacca acaaacttgc atctggaggc     420
aaaccctgac actggagtgc tcacagtctc ctggagagga gcaccacccc agacattact     480
gggtatagaa ttaccacaac ccctacaaa                                       509

<210> 127
<211> 500
<212> DNA
<213> Homo sapien

<400> 127
gaattcggca cgagccactg atgtccgggg agtcagccag gagcttgggg aagggaagcg      60
cgcccccggg gccggtcccg gagggctcga tccgcatcta cagcatgagg ttctgcccgt     120
ttgctgagag gacgcgtcta gtcctgaagg ccaagggaat caggcatgaa gtcatcaata     180
tcaacctgaa aaataagcct gagtggttct ttaagaaaaa tccctttggt ctggtgccag     240
ttctggaaaa cagtcagggt cagctgatct acgagtctgc catcacctgt gagtacctgg     300
atgaagcata cccagggaag aagctgttgc cggatgaccc ctatgagaaa gcttgccaga     360
agatgatctt agagttgttt tctaaggtgc catccttggt aggaagcttt attagaagcc     420
aaaataaaga agactatgct ggcctaaaag aagaatttcg taaagaattt accaagctag     480
aggaggttct gactaataag                                                 500

<210> 128
<211> 500
<212> DNA
<213> Homo sapien

<400> 128
agctttcctc tgctgccgct cggtcacgct tgtgcccgaa ggaggaaaca gtgacagacc      60
tggagactgc agttctctat ccttcacaca gctctttcac catgcctgga tcacttcctt     120
tgaatgcaga agcttgctgg ccaaaagatg tgggaattgt tgcccttgag atctattttc     180
cttctcaata tgttgatcaa gcagagttgg aaaaatatga tggtgtagat gctggaaagt     240
ataccattgg cttgggccag gccaagatgg gcttctgcac agatagagaa gatattaact     300
ctctttgcat gactgtggtt cagaatctta tggagagaaa taacctttcc tatgattgca     360
ttgggcggct ggaagttgga acagagacaa tcatcgacaa atcaaagtct gtgaagacta     420
atttgatgca gctgtttgaa gagtctggga atacagatat agaaggaatc gacacaacta     480
atgcatgcta tggaggcaca                                                 500

<210> 129
<211> 497
<212> DNA
<213> Homo sapien

<400> 129
gaattcggca cgagcagagg tctccagagc cttctctctc ctgtgcaaaa tggcaactct      60
```

```
taaggaaaaa ctcattgcac cagttgcgga agaagaggca acagttccaa acaataagat      120
cactgtagtg ggtgttggac aagttggtat ggcgtgtgct atcagcattc tgggaaagtc      180
tctggctgat gaacttgctc ttgtggatgt tttggaagat aagcttaaag gagaaatgat      240
ggatctgcag catgggagct tatttcttca gacacctaaa attgtggcag ataaagatta      300
ttctgtgacc gccaattcta agattgtagt ggtaactgca ggagtccgtc agcaagaagg      360
ggagagtcgg ctcaatctgg tgcagagaaa tgttaatgtc ttcaaattca ttattcctca      420
gatcgtcaag tacagtcctg attgcatcat aattgtggtt tccaacccag tggacattct      480
tacgtatgtt acctgga                                                     497

      <210> 130
      <211> 383
      <212> DNA
      <213> Homo sapien

      <400> 130
gaattcggca cgagggccgc ggctgccgac tgggtcccct gccgctgtcg ccaccatggc       60
tccgcaccgc cccgcgcccg cgctgctttg cgcgctgtcc ctggcgctgt gcgcgctgtc      120
gctgcccgtc cgcgcggcca ctgcgtcgcg gggggcgtcc caggcggggg cgccccaggg      180
gcgggtgccc gaggcgcggc ccaacagcat ggtggtggaa cacccccgagt tcctcaaggc     240
agggaaggag cctggcctgc agatctggcg tgtggagaaa gttcgatctg gtggcccgtg      300
cccaccaacc tttatggaga cttcttcacg ggcgacgcct acgtcatcct gaagacagtg      360
cagcttaaga acggaaaatc ttg                                              383

      <210> 131
      <211> 509
      <212> DNA
      <213> Homo sapien

      <400> 131
gaattcggca cgagagtcag ccgcatcttc ttttgcgtcg ccagccgagc cacatcgctc       60
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caccagggct gcttttaact ctggtaaagt ggatattgtt gccatcaatg accccttcat      180
tgacctcaac tacatggttt acatgttcca atatgattcc acccatggca aattccatgg      240
caccgtcaag gctgagaacg ggaagcttgt catcaatgga aatcccatca ccatcttcca      300
ggagcgagat ccctccaaaa tcaagtgggg cgatgctggc gctgagtacg tcgtggagtc      360
cactggccgt cttcaccacc atggagaagg ctggggctca tttgcagggg ggagccaaaa      420
gggtcatcat ctctgccccc tctgctgacg cccccatgtt cgtcatgggt gtgaaccatg      480
agaagtatga caacagcctc aagatcatc                                        509

      <210> 132
      <211> 357
      <212> DNA
      <213> Homo sapien

      <400> 132
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ggaggatcct cttcttggtg gcagcagcaa caggtgccca ctcccaggtg caactggtgc      120
aatctgggtc tgagttgaag aagcctgggg cctcagtgaa ggtttcctgc aaggcttctg      180
gacacatctt cagtatctat ggtttgaatt gggtgcgaca ggcccctggt caaggccttg      240
agtggatggg atggatcaaa gtcgacactg cgaacccaac gtatgcccag ggcttcacag      300
gacgatttgt cttctccctg gacacctctg tcagcacggc atatctgcag atcagca         357

      <210> 133
      <211> 468
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<212> DNA
<213> Homo sapien

<400> 133
gaattcggca cgaggcgccc cgaaccgtcc tcctgctgct ctcggcggcc ctggccctga 60
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gccgcgggga gccccgcttc atctcagtgg gctacgtgga cgacacgcag ttcgtgaggt 180
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ggccggagta ttgggaccgg aacacacaga tcttcaagac caacacacag actgaccgag 300
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acgcctacga cggcaaggat tacatcgccc tgaacgagga cctgcgct 468

<210> 134
<211> 214
<212> DNA
<213> Homo sapien

<400> 134
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ccttccggag cgggggcagt cgtagcttca gcaccgcctc tgccatcacc ccgtctgtct 180
cccgcaccag cttcacctcc gtgtcccggt ccgg 214

<210> 135
<211> 355
<212> DNA
<213> Homo sapien

<400> 135
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aagggcgccg ggtctgtgtt ccgcgcgcac gtgaagcacc gtaaaggcgc tgcgcgcctg 120
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cacgacccgg gccgcggcgc gcccctcgcc aaggtggtct tccgggatcc gtatcggttt 240
aagaagcgga cggagctgtt cattgccgcc gagggcattc acacgggcca gtttgtgtat 300
tgcggcaaga aggcccagct caacattggc aatgtgctcc ctgtgggcac catgc 355

<210> 136
<211> 242
<212> DNA
<213> Homo sapien

<400> 136
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agtggtgtga tctcggctcg ctacaacatc cacctcccag cagcctgcct tggcctccca 180
aagtgccgag attgcagctc tctgcccggc cgccacccct gtctgggaag tgaggatgct 240
gt 242

<210> 137
<211> 424
<212> DNA
<213> Homo sapien

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     <400> 137
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ttcgacccga gccccgcgcc ctttccggga cccctgcccc gcgggcagcg ctgccaacct       180
gccggccatg gagaccccgt cccagcggcg cgccacccgc agcggggcgc aggccagctc       240
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caatgatcgc ttggcggtct acatcgaccg tgtgcgctcg ctggaaacgg agaacgcagg       360
gctgcgcctt cgcatcaccg agtctgaaga ggtggtcagc cgcgaggtgt ccggcatcaa       420
ggcc                                                                    424

     <210> 138
     <211> 448
     <212> DNA
     <213> Homo sapien

     <400> 138
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agacttacct gtcctactca ccgatttgaa gattcaatat actaagatct tcataaacaa       120
tgaatggcat gattcagtga gtggcaagaa atttcctgtc tttaatcctg caactgagga       180
ggagctctgc caggtagaag aaggagataa ggaggatgtt gacaaggcag tgaaggccgc       240
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actattatac aagttggctg atttaatcga aagagatcgt ctgctgctgg ccgacaatgg       360
agtcaatgaa tggtggaaaa ctctattcca atgcatatct gaatgattta gcaggctgca       420
tcaaaacatt gcgctactgt gcaggttg                                          448

     <210> 139
     <211> 510
     <212> DNA
     <213> Homo sapien

     <400> 139
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gtgccagcgc cggacccgtt tcatctccct ggcgaggcgt gcaagaaggt cttcctggac       180
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cccagagagc tggctgtgga acgttgagga cttgaaagag ccaccgaaaa atggaatctc       360
tacgaagctc atgaatatat ttttgaaaga ctccatcacc acgtgggaga ttctggctgt       420
gagcatgtcg gacaagaaag ggatctgtgt ggcagacccc ttcgaggtca cagtaatgca       480
ggacttcttc atcgacctgc ggctacccta                                        510

     <210> 140
     <211> 360
     <212> DNA
     <213> Homo sapien

     <400> 140
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ctcacacacc ggcctcagcc cgcaccggca gtagaagatg gtgaaagaaa caacttacta       120
cgatgttttg ggggtcaaac ccaatgctac tcaggaagaa ttgaaaaagg cttataggaa       180
actggctttg aagtaccatc ctgataagaa cccaaatgaa ggagagaagt ttaaacagat       240
ttctcaagct tacgaagttc tctctgatgc aaagaaaagg gaattatatg acaaaggagg       300
agaacaggca attaaagagg gtggagcagg tggcggtttt ggctcccccca tggacatctt      360
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<210> 141
<211> 483
<212> DNA
<213> Homo sapien

<400> 141
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ccctgtctga ctacaacatc cagaaagagt ccaccctgca cctggtgctc cgtctcagag     120
gtgggatgca aatcttcgtg aagacactca ctggcaagac catcaccctt gaggtggagc     180
ccagtgacac catcgagaac gtcaaagcaa agatccagga caaggaaggc attcctcctg     240
accagcagag gttgatcttt gccggaaagc agctggaaga tgggcgcacc ctgtctgact     300
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tcttcgtgaa gaccctgact ggtaagacca tcaccctcga ggtggagccc agtgacacca     420
tcgagaatgt caaggcaaag atccaagata aggaaggcat tcctcctgat cagcagaggt     480
tga                                                                   483

<210> 142
<211> 500
<212> DNA
<213> Homo sapien

<400> 142
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aggcctgcag cagcagaagc agcagaaagg ccgcggcatg ggcggcgctg gccgaggtgt     420
gtttggtggc cggggccgag gtgggatccc gggcacaggc agaagccagc cagagaagaa     480
gcctggcaga caggcgggca                                                 500

<210> 143
<211> 400
<212> DNA
<213> Homo sapien

<400> 143
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ctgcgggctg cttcgggcca gggtcgaccc gagggccagc gcaagcagcg gcaacaggag     180
cgccaggagg acatgaggct ctgcctgcag tcagcaactt ggaatattca gacttcagac     240
cagcatcaca gattataacc ctccgtaaat catctgcatc ccagctccca tcaaaagcca     300
gcctgaagga cccatggaca cgtgactcca gtgttctcaa caacatctta gatcaagttg     360
gtttgcacaa catttgcatc tacttgggac aaagcaagaa                           400

<210> 144
<211> 243
<212> DNA
<213> Homo sapien

<400> 144
gaattcggca cgagccagct cctaaccgcg agtgatccgc cagcctccgc ctcccgaggt      60
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aagtgccgag attgcagcct ctgcccggcc gtcaccccgt ctgggaagtg aggagcgttt      240
ctg                                                                    243

      <210> 145
      <211> 450
      <212> DNA
      <213> Homo sapien

      <400> 145
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cggcggcggc ggcggtggtg gttacaaccg cagcagtggt ggctatgaac ccagaggtcg      120
tggaggtggc cgtggaggca gaggtggcat gggcggaagt gaccgtggtg gcttcaataa      180
atttggtggc cctcgggacc aaggatcacg tcatgactcc gaacaggata attcagacaa      240
caacaccatc tttgtgcaag gcctgggtga gaatgttaca attgagtctg tggctgatta      300
cttcaagcag attggtatta ttaagacaaa caagaaaacg ggacagccca tgattaattt      360
gtacacagac agggaaactg gcaagctgaa gggagaggca acggtctctt ttgatgaccc      420
accttcagct aaagcagcct attgactggt                                       450

      <210> 146
      <211> 451
      <212> DNA
      <213> Homo sapien

      <400> 146
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gcgggagatc gacgcgaaat accaagagat cctgaaggag ctagacgagt gctacgagcg      120
cttcagtcgc gagacagacg ggcgcagaa gcggcggatg ctgcactgtg tgcagcgcgc       180
gctgatccgc accaggagct gggcgacgag aagatccaga tcgtgagcca gatggtggag      240
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gagctgggcg acacagcggg caacagcggc aaggctggcg cggacaggcc caaaggcgag      360
gcggcagcgc aggctgacaa gcccaacagc aagcgctcac ggcggcagcg caacaacgag      420
aaccgtgaga acgcgtccag caaccacgac c                                     451

      <210> 147
      <211> 400
      <212> DNA
      <213> Homo sapien

      <400> 147
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ctcagaagaa agcgatcggc cccgaggcag gaaggccggc tccggtgcag ggcgcgccgc      120
ctgcgggctg cttcgggcca gggtcgaccc gagggccagc gcaagcagcg gcaacaggag      180
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cagcatcaca gattataacc ctccgtaaat catctgcatc ccagctccca tcaaaagcca      300
gcctgaagga cccatggaca cgtgactcca gtgttctcaa caacatctta gatcaagttg      360
gtttgcacaa catttgcatc tacttgggac aaagcaagaa                           400

      <210> 148
      <211> 503
      <212> DNA
      <213> Homo sapien

      <400> 148
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cgagtgaagc tgcgcttttt ctaaagaagt ctggcctctc ggacattatc cttgggaaga       180
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tgagcatgcc accgcctaaa tttcacgaca ccagcagccc tctgatggtc acaccgccct       360
ctgcagaggc ccactgggct gtgagggtgg aagaaaaggc caaatttgat gggatttttg       420
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actcaaagct gcctcttgat gtc                                                503

      <210> 149
      <211> 1061
      <212> DNA
      <213> Homo sapien

      <400> 149
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      <210> 150
      <211> 781
      <212> DNA
      <213> Homo sapien

      <400> 150
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c

      <210> 151
      <211> 3275
      <212> DNA
      <213> Homo sapien

      <400> 151
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ttacatgcaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa    3180
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<211> 2109
<212> DNA
<213> Homo sapien

<400> 153

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ctgacacccc caaagagcga ggacaaggtg tcagagaatg gggcctgag  attccccagg     240
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<212> DNA
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<400> 154

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<211> 2668
<212> DNA
<213> Homo sapien

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      <212> DNA
      <213> Homo sapien

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      <211> 2114
      <212> DNA
      <213> Homo sapien

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cctggtgccg aattcggcac gaggtaccac tggtctgtgt gctagaggag ggtgttgcca    1500
tagaaccagt ggccacagtt gtggtggtgg tggtcagcac tgtgggggtg tgggtggtcc    1560
ccgggacgga ggagggggtc accgtgaagc cactggttgt gggtgtggtg gttgtgctga    1620
tccacactgg aggcgtgcgt gccgtccctg ggctgaagga gggggtgact gtgaagcccg    1680
tggttgtggt agtcggcact ttggtagtgt gagctgttcc tggggtggaa gagggggtgg    1740
ccacagagcc ggtggccctg gttgtggtgg ccgtggtggt aagcactgtg gaggtgtggg    1800
cagtctctgg agtggaggag ggtgtggctg tggacatggt ggccgtgggt gtggtggtct    1860
gtgataggcg ggtccaggtg gtgcccaggg aggaggaggg gatggctgta aagctggtag    1920
ctgtgggtgt ggtggctgtg cttctcagtg ctggaagggc ggttgcagtc cctggactgg    1980
agaagggagt ggctttggag ctggtgactg tgggtgtcgt ggccgtggtg ctcacatgtg    2040
gggtgccagc agttgcctgg gtggaggagg cggtggccgt ggatccggtg ggcaccgtca    2100
cgggagtact tcta                                                      2114

     <210> 159
     <211> 278
     <212> DNA
     <213> Homo sapien

     <400> 159
gaattcggca caggtaactt tgcctggggt atttaaaaaa aaaaaaaaaa aaaaaaaaag      60
tcaaatatct gagtactaat ttcctgaaaa gtatgttccg atagatgaac agatcattaa     120
tgcagaatga gaatcactcc taaaataggt aatggtaaaa attaaattga caattacctc     180
tctctatgca gaaggaaata tcacctatat gacatcatca tcatctattg atacttgctg     240
gcagtgctaa taatggtttt aatgccaatt tgtaagaa                            278

     <210> 160
     <211> 848
     <212> DNA
     <213> Homo sapien

     <400> 160
gaattcggca cgagccccag aggagctcgg cctgcgctgc gccacgatgt ccggggagtc      60
agccaggagc ttggggaagg gaagcgcgcc cccggggccg gtcccggagg gctcgatccg     120
catctacagc atgaggttct gcccgtttgc tgagaggacg cgtctagtcc tgaaggccaa     180
gggaatcagg catgaagtca tcaatatcaa cctgaaaaat aagcctgagt ggttctttaa     240
gaaaaatccc tttggtctgg tgccagttct ggaaaacagt cagggtcagc tgatctacga     300
gtctgccatc acctgtgagt acctggatga agcataccca gggaagaagc tgttgccgga     360
tgacccctat gagaaagctt gccagaagat gatcttagag ttgttttcta aggtgccatc     420
cttggtagga agctttatta gaagccaaaa taaagaagac tatgctggcc taaaagaaga     480
atttcgtaaa gaatttacca agctagagga ggttctgact aataagaaga cgaccttctt     540
tggtggcaat tctatctcta tgattgatta cctcatctgg ccctggtttg aacggctgga     600
agcaatgaag ttaaatgagt gtgtagacca cactccaaaa ctgaaactgt ggatggcagc     660
catgaaggaa gatcccacag tctcagccct gcttactagt gagaaagact ggcaaggttt     720
cctagagctc tacttacaga acagccctga ggcctgtgac tatgggctct gaagggggca     780
ggagtcagca ataaagctat gtctgatatt ttccttcact aaaaaaaaaa aaaaaaaaaa     840
aactcgag                                                              848

     <210> 161
     <211> 432
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<212> DNA
<213> Homo sapien

<400> 161
gaattcggca cgagggcaga ccaagatcct ggaggaggac ctggaacaga tcaagctgtc 60
cttgagagag cgaggccggg agctgaccac tcagaggcag ctgatgcagg aacgggcaga 120
ggaagggaag ggcccaagta aagcacagcg cgggagccta gagcacatga agctgatcct 180
gcgtgataag gagaaggagg tggaatgtca gcaggagcat atccatgaac tccaggagct 240
caaagaccag ctggagcagc agctccaggg cctgcacagg aaggtaggtg agaccagcct 300
cctcctgtcc cagcgagagc aggaaatagt ggtcctgcag cagcaactgc aggaagccag 360
ggaacaaggg gagctgaagg agcagtcact tcagagtcaa ctggatgagg cccagagagc 420
cctagcccag ag 432

<210> 162
<211> 433
<212> DNA
<213> Homo sapien

<400> 162
gattcggcac gagccggagc tgggttgctc ctgctcccgt ctccaagtcc tggtacctcc 60
ttcaagctgg gagagggctc tagtccctgg ttctgaacac tctggggttc tcgggtgcag 120
gccgccatga gcaaacggaa ggcgccgcag gagactctca acgggggaat caccgacatg 180
ctcacagaac tcgcaaactt tgagaagaac gtgagccaag ctatccacaa gtacaatgct 240
tacagaaaag cagcatctgt tatagcaaaa tacccacaca aaataaagag tggagctgaa 300
gctaagaaat tgcctggagt aggaacaaaa attgctgaaa agattgatga gtttttagca 360
actggaaaat tacgtaaact ggaaaagatt cggcaggatg atacgagttc atccatcaat 420
ttcctgactc gag 433

<210> 163
<211> 432
<212> DNA
<213> Homo sapien

<400> 163
gaattcggca ccagatgagg ccaacgaggt gacggacagc gcgtacatgg gctccgagag 60
cacctacagt gagtgtgaga ccttcacgga cgaggacacc agcaccctgg tgcaccctga 120
gctgcaacct gaaggggacg cagacagtgc cggcggctcg gccgtgccct ctgagtgcct 180
ggacgccatg gaggagcccg accatggtgc cctgctgctg ctcccaggca ggcctcaccc 240
ccatggccag tctgtcatca cggtgatcgg gggcgaggag cactttgagg actacggtga 300
aggcagtgag gcggagctgt ccccagagac cctatgcaac gggcagctgg gctgcagtga 360
ccccgctttc ctcacgccca gtccgacaaa gcggctctcc agcaagaagg tggcaaggta 420
cctgcaccag tc 432

<210> 164
<211> 395
<212> DNA
<213> Homo sapien

<400> 164
gacacttgaa tcatgggtga cgttaaaaat tttctgtatg cctggtgtgg caaaaggaag 60
atgaccccat cctatgaaat tagagcagtg gggaacaaaa acaggcagaa attcatgtgt 120
gaggttcagg tggaaggtta taattacact ggcatgggaa attccaccaa taaaaaagat 180
gcacaaagca atgctgccag agactttgtt aactatttgg ttcgaataaa tgaaataaag 240
agtgaagaag ttccagcttt tggggtagca tctccgcccc cacttactga tactcctgac 300

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actacagcaa atgctgaagg catcttgttg acatcgaata tgactttgat aataaatacc     360
ggttcctgaa aaaaaaaaa aaaaaaaac tcgag                                395

      <210> 165
      <211> 503
      <212> DNA
      <213> Homo sapien

      <400> 165
gaattcggca ccaggaacgc tcggtgagag gcggaggagc ggtaactacc ccggttgcgc      60
acagctcggc gctccttccc gctccctcac acaccggcct cagcccgcac cggcagtaga     120
agatggtgaa agaaacaact tactacgatg ttttgggggt caaacccaat gctactcagg     180
aagaattgaa aaaggcttat aggaaactgg ccttgaagta ccatcctgat aagaacccaa     240
atgaaggaga gaagtttaaa cagatttctc aagcttacga agttctctct gatgcaaaga     300
aaagggaatt atatgacaaa ggaggagaac aggcaattaa agagggtgga gcaggtggcg     360
gttttggctc cccc atggac atctttgata tgtttttgg aggaggagga aggatgcaga     420
gagaaaggag aggtaaaaat gttgtacatc agctctcagt aaccctagaa gacttatata     480
atggtgcaac aagaaaactg gct                                            503

      <210> 166
      <211> 893
      <212> DNA
      <213> Homo sapien

      <400> 166
gaattcggca cgagaggaac ttctcttgac gagaagagag accaaggagg ccaagcaggg      60
gctgggccag aggtgccaac atggggaaac tgaggctcgg ctcggaaggg tgagagtgag     120
actacatctc aaaaaaaaa aaaaaaaaa aaaagaaaga aaagaaaaga aaaaagaaag     180
aacggaagta gttgtaggta gtggtatggt ggtatgagtc tgttttctgt tacttataac     240
aacaacaaca acaaaaaacg ctgaaactgg gtaatttata aagaaaagga aaaaaagcag     300
aaaaaaatca ggaagaagag aaaggaaaag aagacaaata aatgaaattt atgtattaca     360
gttctgaagg ctgagacatc ccaggtcaag ggtccacact tggcgagggc tttcttgctg     420
gtggagactc tttgtggagt cctgggacag tgcagaagga tcacgcctcc ctaccgctcc     480
aagcccagcc ctcagccatg gcatgccccc tggatcaggc cattggcctc ctcgtggcca     540
tcttccacaa gtactccggc agggagggtg acaagcacac cctgagcaag aaggagctga     600
aggagctgat ccagaaggag ctcaccattg gctcgaagct gcaggatgct gaaattgcaa     660
ggctgatgga agacttggac cggaacaagg accaggaggt gaacttccag gagtatgtca     720
ccttcctggg ggccttggct ttgatctaca atgaagccct caagggctga aaataaatag     780
ggaagatgga gacaccctct gggggtcctc tctgagtcaa atccagtggt gggtaattgt     840
acaataaatt ttttttggtc aaatttaaaa aaaaaaaaa aaaaaaactc gag            893

      <210> 167
      <211> 549
      <212> DNA
      <213> Homo sapien

      <400> 167
gaattcggca cgagcccaga tcccgaggtc cgacagcgcc cggcccagat ccccacgcct      60
gccaggagca agccgagagc cagccggccg gcgcactccg actccgagca gtctctgtcc     120
ttcgacccga gccccgcgcc ctttccggga cccctgcccc gcgggcagcg ctgccaacct     180
gccggccatg gagaccccgt cccagcggcg cgccacccgc agcggggcgc aggccagctc     240
cactccgctg tcgcccaccc gcatcacccg gctgcaggag aaggaggacc tgcaggagct     300
caatgatcgc ttggcggtct acatcgaccg tgtgcgctcg ctggaaacgg agaacgcagg     360
gctgcgcctt cgcatcaccg agtctgaaga ggtggtcagc cgcgaggtgt ccggcatcaa     420
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ggccgcctac gaggccgagc tcggggatgc ccgcaagacc cttgactcag tagccaagga 480
gcgcgcccgc ctgcagctgg agctgagcaa agtgcgtgaa gagtttaagg agctgaaagc 540
gcgcaatac 549

<210> 168
<211> 547
<212> DNA
<213> Homo sapien

<400> 168
gaattcggca cgagatggcg gcaggggtcg aagcggcggc ggaggtggcg gcgacggaga 60
tcaaaatgga ggaagagagc ggcgcgcccg gcgtgccgag cggcaacggg gctccgggcc 120
ctaagggtga aggagaacga cctgctcaga atgagaagag gaaggagaaa aacataaaaa 180
gaggaggcaa tcgctttgag ccatatgcca atccaactaa aagatacaga gccttcatta 240
caaacatacc ttttgatgtg aaatggcagt cacttaaaga cctggttaaa gaaaaagttg 300
gtgaggtaac atacgtggag ctcttaatgg acgctgaagg aaagtcaagg ggatgtgctg 360
ttgttgaatt caagatggaa gagagcatga aaaaagctgc ggaagtccta aacaagcata 420
gtctgagcgg aagaccactg aaagtcaaag aagatcctga tggtgaacat gccaggagag 480
caatgcaaaa ggctggaaga cttggaagca cagtatttgt agcaaatctg gattataaag 540
ttggctg 547

<210> 169
<211> 547
<212> DNA
<213> Homo sapien

<400> 169
gaattcggca ccaggagtcc gactgtgctc gctgctcagc gccgcacccg gaagatgagg 60
ctcgccgtgg gagccctgct ggtctgcgcc gtcctggggc tgtgtctggc tgtccctgat 120
aaaactgtga gatggtgtgc agtgtcggag catgaggcca ctaagtgcca gagtttccgc 180
gaccatatga aaagcgtcat tccatccgat ggtcccagtg ttgcttgtgt gaagaaagcc 240
tcctaccttg attgcatcag ggccattgcg gcaaacgaag cggatgctgt gacactggat 300
gcaggtttgg tgtatgatgc ttacctggct cccaataacc tgaagcctgt ggtggcagag 360
ttctatgggt caaaagagga tccacagact ttctattatg ctgttgctgt ggtgaagaag 420
gatagtggct tccagatgaa ccagcttcga ggcaagaagt cctgccacac gggtctaggc 480
aggtccgctg ggtggaacat ccccataggc ttactttact gtgacttacc tgagccacgt 540
aaacctc 547

<210> 170
<211> 838
<212> DNA
<213> Homo sapien

<400> 170
gaattcggca ccagaggagc tcggcctgcg ctgcgccacg atgtccgggg agtcagccag 60
gagcttgggg aagggaagcg cgcccccggg gccggtcccg gagggctcga tccgcatcta 120
cagcatgagg ttctgcccgt ttgctgagag gacgcgtcta gtcctgaagg ccaagggaat 180
caggcatgaa gtcatcaata tcaacctgaa aaataagcct gagtggttct ttaagaaaaa 240
tccctttggt ctggtgccag ttctggaaaa cagtcagggt cagctgatct acgagtctgc 300
catcacctgt gagtacctgg atgaagcata cccagggaag aagctgttgc cggatgaccc 360
ctatgagaaa gcttgccaga agatgatctt agagttgttt tctaaggtgc catccttggt 420
aggaagcttt attagaagcc aaaataaaga agactatgat ggcctaaaag aagaatttcg 480
taaagaattt accaagctag aggaggttct gactaataag aagacgacct tctttggtgg 540
caattctatc tctatgattg attacctcat ctggccctgg tttgaacggc tggaagcaat 600

gaagttaaat gagtgtgtag accacactcc aaaactgaaa ctgtggatgg cagccatgaa 660
ggaagatccc acagtctcag ccctgcttac tagtgagaaa gactggcaag gtttcctaga 720
gctctactta cagaacagcc ctgaggcctg tgactatggg ctctgaaggg ggcaggagtc 780
agcaataaag ctatgtctga tattttcctt cactaaaaaa aaaaaaaaaa aactcgag 838

<210> 171
<211> 547
<212> DNA
<213> Homo sapien

<400> 171
gaattcggca ccagcgggat ttgggtcgca gttcttgttt gtggattgct gtgatcgtca 60
cttgacaatg cagatcttcg tgaagactct gactggtaag accatcaccc tcgaggttga 120
gcccagtgac accatcgaga atgtcaaggc aaagatccaa gataaggaag gcatccctcc 180
tgaccagcag aggctgatct ttgctggaaa acagctggaa gatgggcgca ccctgtctga 240
ctacaacatc cagaaagagt ccaccctgca cctggtgctc cgtctcagag gtgggatgca 300
aatcttcgtg aagacactca ctggcaagac catcacccct gaggtcgagc ccagtgacac 360
catcgagaac gtcaaagcaa agatccagga caaggaaggc attcctcctg accagcagag 420
gttgatcttt gccggaaagc agctggaaga tgggcgcacc ctgtctgact acaacatcca 480
gaaagagtct accctgcacc tggtgctccg tctcagaggt gggatgcaga tcttcgtgaa 540
gaccctg 547

<210> 172
<211> 608
<212> DNA
<213> Homo sapien

<400> 172
gaattcggca ccagagactt ctccctctga ggcctgcgca cccctcctca tcagcctgtc 60
cacccctcatc tacaatggtg ccctgccatg tcagtgcaac cctcaaggtt cactgagttc 120
tgagtgcaac cctcatggtg gtcagtgcct gtgcaagcct ggagtggttg ggcgccgctg 180
tgacctctgt gcccctggct actatggctt tggccccaca ggctgtcaag gcgcttgcct 240
gggctgccgt gatcacacag gggtgagca ctgtgaaagg tgcattgctg gtttccacgg 300
ggacccacgg ctgccatatg ggggccagtg ccggccctgt ccctgtcctg aaggccctgg 360
gagccaacgg cactttgcta cttcttgcca ccaggatgaa tattcccagc agattgtgtg 420
ccactgccgg gcaggctata cggggctgcg atgtgaagct tgtgcccctg ggcactttgg 480
ggacccatca aggccaggtg gccggtgcca actgtgtgag tgcagtggga acattgaccc 540
aatggatcct gatgcctgtg acccccacac ggggcaatgc ctgcgctgtt tacaccacac 600
agagggtc 608

<210> 173
<211> 543
<212> DNA
<213> Homo sapien

<400> 173
gaattcggca ccagagatca tccgccagca gggtctggcc tcctacgact acgtgcgccg 60
ccgcctcacg gctgaggacc tgttcgaggc tcggatcatc tctctcgaga cctacaacct 120
gctccgggag ggcaccagga gcctccgtga ggctctcgag gcggagtccg cctggtgcta 180
cctctatggc acgggctccg tggctggtgt ctacctgccc ggttccaggc agacactgag 240
catctaccag gctctcaaga aagggctgct gagtgccgag gtggcccgcc tgctgctgga 300
ggcacaggca gccacaggct tcctgctgga cccggtgaag ggggaacggc tgactgtgga 360
tgaagctgtg cggaagggcc tcgtggggcc cgaactgcac gaccgcctgc tctcggctga 420
gcgggcggtc accggctacc gtgacccta caccgagcag accatctcgc tcttccaggc 480

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catgaagaag gaactgatcc ctactgagga ggccctgcgg ctgtggatgc ccagctggcc      540
acc                                                                    543

      <210> 174
      <211> 548
      <212> DNA
      <213> Homo sapien

      <400> 174
gaattcggca cgagaaatgg cggcaggggt cgaagcggcg gcggaggtgg cggcgacgga       60
gatcaaaatg gaggaagaga gcggcgcgcc cggcgtgccg agcggcaacg ggctccgggg      120
ccctaagggt gaaggagaac gacctgctca gaatgagaag aggaaggaga aaaacataaa      180
aagaggaggc aatcgctttg agccatatgc caatccaact aaaagataca gagccttcat      240
tacaaacata ccttttgatg tgaaatggca gtcacttaaa gacctggtta aagaaaaagt      300
tggtgaggta acatacgtgg agctcttaat ggacgctgaa ggaaagtcaa ggggatgtgc      360
tgttgttgaa ttcaagatgg aagagagcat gaaaaaagct gcggaagtcc taaacaagca      420
tagtctgagc ggaagaccac tgaaagtcaa agaagatcct gatggtgaac atgccaggag      480
agcaatgcaa aaggtgatgg ctacgactgg tgggatgggt atgggaccag gtggcccagg      540
aatgatta                                                               548

      <210> 175
      <211> 604
      <212> DNA
      <213> Homo sapien

      <400> 175
gaattcggca ccagaggacc tccaggacat gttcatcgtc cataccatcg aggagattga       60
gggcctgatc tcagcccatg accagttcaa gtccaccctg ccggacgccg atagggagcg      120
cgaggccatc ctggccatcc acaaggaggc ccagaggatc gctgagagca accacatcaa      180
gctgtcgggc agcaacccct acaccaccgt caccccgcaa atcatcaact ccaagtggga      240
gaaggtgcag cagctggtgc caaaacggga ccatgccctc ctggaggagc agagcaagca      300
gcagtccaac gagcacctgc gccgccagtt cgccagccag gccaatgttg tggggccctg      360
gatccagacc aagatggagg agatcgggcg catctccatt gagatgaacg ggaccctgga      420
ggaccagctg agccacctga agcagtatga acgcagcatc gtggactaca agcccaacct      480
ggacctgctg gagcagcagc accagcttat ccaggaggcc ctcatcttcg acaacaagca      540
caccaactat accatggagc acatccgcgt gggctgggag cagctgctca ccaccattgc      600
ccgg                                                                   604

      <210> 176
      <211> 486
      <212> DNA
      <213> Homo sapien

      <400> 176
gaattcggca ccagccaagc tcactattga atccacgccg ttcaatgtcg cagaggggaa       60
ggaggttctt ctactcgccc acaacctgcc ccagaatcgt attggttaca gctggtacaa      120
aggcgaaaga gtggatggca acagtctaat tgtaggatat gtaataggaa ctcaacaagc      180
taccccaggg cccgcataca gtggtcgaga gacaatatac cccaatgcat ccctgctgat      240
ccagaacgtc acccagaatg acacaggatt ctatacccta caagtcataa agtcagatct      300
tgtgaatgaa gaagcaaccg gacagttcca tgtatacccg gagctgccca agccctccat      360
ctccagcaac aactccaacc ccgtggagga caaggatgct gtggccttca cctgtgaacc      420
tgaggttcag aacacaacct acctgtggtg ggtaaatggt cagagcctcc cggtcagtcc      480
caaggc                                                                 486
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<210> 177
<211> 387
<212> DNA
<213> Homo sapien

<400> 177
gaattcggca ccagggacag cagaccagac agtcacagca gccttgacaa aacgttcctg 60
gaactcaagc tcttctccac agaggaggac agagcagaca gcagagacca tggagtctcc 120
ctcggcccct ccccacagat ggtgcatccc ctggcagagg ctcctgctca cagcctcact 180
tctaaccttc tggaacccgc ccaccactgc caagctcact attgaatcca cgccgttcaa 240
tgtcgcagag gggaaggagg tgcttctact tgtccacaat ctgccccagc atctttttgg 300
ctacagctgg tacaaaggtg aaagagtgga tggcaaccgt caaattatag gatatgtaat 360
aggaactcaa caagctaccc cagggcc 387

<210> 178
<211> 440
<212> DNA
<213> Homo sapien

<400> 178
gaattcggca cgaggagaag cagaaaaaca aggaatttag ccagacttta gaaaatgaga 60
aaaatacctt actgagtcag atatcaacaa aggatggtga actaaaaatg cttcaggagg 120
aagtaaccaa aatgaacctg ttaaatcagc aaatccaaga agaactctct agagttacca 180
aactaaagga gacagcagaa gaagagaaag atgatttgga agagaggctt atgaatcaat 240
tagcagaact taatggaagc attgggaatt actgtcagga tgttacagat gcccaaataa 300
aaaatgagct attggaatct gaaatgaaga accttaaaaa gtgtgtgagt gaattggaag 360
aagaaaagca gcagttagtc aaggaaaaaa ctaaggtgga atcagaaata cgaaaggaat 420
atttggagaa aatacaaggt 440

<210> 179
<211> 443
<212> DNA
<213> Homo sapien

<400> 179
gaattcggca ccagcggggg gctacggcgg cggctacggc ggcgtcctga ccgcgtccga 60
cgggctgctg gcgggcaacg agaagctaac catgcagaac ctcaacgacc gcctggcctc 120
ctacctggac aaggtgcgcg ccctggaggc ggccaacggc gagctagagg tgaagatccg 180
cgactggtac cagaagcagg ggcctgggcc ctcccgcgac tacagccact actacacgac 240
catccaggac ctgcgggaca agattcttgg tgccaccatt gagaactcca ggattgtcct 300
gcagatcgac aacgcccgtc tggctgcaga tgacttccga accaagtttg agacggaaca 360
ggctctgcgc atgagcgtgg aggccgacat caacggcctg cgcagggtgc tggatgagct 420
gaccctggcc aggaccgacc tgg 443

<210> 180
<211> 403
<212> DNA
<213> Homo sapien

<400> 180
gaattcggca cgaggttatg agagtcgact tcaatgttcc tatgaagaac aaccagataa 60
caaacaacca gaggattaag gctgctgtcc caagcatcaa attctgcttg gacaatggag 120
ccaagtcggt agtccttatg agccacctag gccggcctga tggtgtgccc atgcctgaca 180
agtactcctt agagccagtt gctgtagaac tcagatctct gctgggcaag gatgttctgt 240

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tcttgaagga ctgtgtaggc ccagaagtgg agaaagcctg tgccaaccca gctgctgggt     300
ctgtcatcct gctggagaac ctccgctttc atgtggagga agaagggaag ggaaaagatg     360
cttctgggaa caaggttaaa gccgagccag ccaaaataga agc                       403

     <210> 181
     <211> 493
     <212> DNA
     <213> Homo sapien

     <400> 181
gaattcggca ccagcagagg tctccagagc cttctctctc ctgtgcaaaa tggcaactct      60
taaggaaaaa ctcattgcac cagttgcgga agaagaggca acagttccaa acaataagat     120
cactgtagtg ggtgttggac aagttggtat ggcgtgtgct atcagcattc tgggaaagtc     180
tctggctgat gaacttgctc ttgtggatgt tttggaagat aagcttaaag gagaaatgat     240
ggatctgcag catgggagct tatttcttca gacacctaaa attgtggcag ataaagatta     300
ttctgtgacc gccaattcta agattgtagt ggtaactgca ggagtccgtc agcaagaagg     360
ggagagtcgg ctcaatctgg tgcagagaaa tgttaatgtc ttcaaattca ttattcctca     420
gatcgtcaag tacagtcctg attgcatcat aattgtggtt tccaacccag tggacattct     480
tacgtatgtt acc                                                        493

     <210> 182
     <211> 209
     <212> PRT
     <213> Homo sapien

     <400> 182
Ala Phe Ser Ser Asn Pro Lys Val Gln Val Glu Ala Ile Glu Gly Gly
1               5                   10                  15
Ala Leu Gln Lys Leu Leu Val Ile Leu Ala Thr Glu Gln Pro Leu Thr
            20                  25                  30
Ala Lys Lys Lys Val Leu Phe Ala Leu Cys Ser Leu Leu Arg His Phe
        35                  40                  45
Pro Tyr Ala Gln Arg Gln Phe Leu Lys Leu Gly Gly Leu Gln Val Leu
    50                  55                  60
Arg Thr Leu Val Gln Glu Lys Gly Thr Glu Val Leu Ala Val Arg Val
65                  70                  75                  80
Val Thr Leu Leu Tyr Asp Leu Val Thr Glu Lys Met Phe Ala Glu Glu
                85                  90                  95
Glu Ala Glu Leu Thr Gln Glu Met Ser Pro Glu Lys Leu Gln Gln Tyr
            100                 105                 110
Arg Gln Val His Leu Leu Pro Gly Leu Trp Glu Gln Gly Trp Cys Glu
        115                 120                 125
Ile Thr Ala His Leu Leu Ala Leu Pro Glu His Asp Ala Arg Glu Lys
    130                 135                 140
Val Leu Gln Thr Leu Gly Val Leu Leu Thr Thr Cys Arg Asp Arg Tyr
145                 150                 155                 160
Arg Gln Asp Pro Gln Leu Gly Arg Thr Leu Ala Ser Leu Gln Ala Glu
                165                 170                 175
Tyr Gln Val Leu Ala Ser Leu Glu Leu Gln Asp Gly Glu Asp Glu Gly
            180                 185                 190
Tyr Phe Gln Glu Leu Leu Gly Ser Val Asn Ser Leu Leu Lys Glu Leu
        195                 200                 205
Arg
```

```
<210> 183
<211> 255
<212> PRT
<213> Homo sapien

<400> 183
Met Ala Ala Gly Val Glu Ala Ala Ala Glu Val Ala Ala Thr Glu Pro
1               5                   10                  15
Lys Met Glu Glu Glu Ser Gly Ala Pro Cys Val Pro Ser Gly Asn Gly
            20                  25                  30
Ala Pro Gly Pro Lys Gly Glu Glu Arg Pro Thr Gln Asn Glu Lys Arg
        35                  40                  45
Lys Glu Lys Asn Ile Lys Arg Gly Gly Asn Arg Phe Glu Pro Tyr Ser
    50                  55                  60
Asn Pro Thr Lys Arg Tyr Arg Ala Phe Ile Thr Asn Ile Pro Phe Asp
65                  70                  75                  80
Val Lys Trp Gln Ser Leu Lys Asp Leu Val Lys Glu Lys Val Gly Glu
                85                  90                  95
Val Thr Tyr Val Glu Leu Leu Met Asp Ala Glu Gly Lys Ser Arg Gly
            100                 105                 110
Cys Ala Val Val Glu Phe Lys Met Glu Glu Ser Met Lys Lys Ala Ala
        115                 120                 125
Glu Val Leu Asn Lys His Ser Leu Ser Gly Arg Pro Leu Lys Val Lys
    130                 135                 140
Glu Asp Pro Asp Gly Glu His Ala Arg Arg Ala Met Gln Lys Ala Gly
145                 150                 155                 160
Arg Leu Gly Ser Thr Val Phe Val Ala Asn Leu Asp Tyr Lys Val Gly
                165                 170                 175
Trp Lys Lys Leu Lys Glu Val Phe Ser Met Ala Gly Val Val Val Arg
            180                 185                 190
Ala Asp Ile Leu Glu Asp Lys Asp Gly Lys Ser Arg Gly Ile Gly Ile
        195                 200                 205
Val Thr Phe Glu Gln Ser Ile Glu Ala Val Gln Ala Ile Ser Met Phe
    210                 215                 220
Asn Gly Gln Leu Leu Phe Asp Arg Pro Met His Val Lys Met Asp Glu
225                 230                 235                 240
Arg Ala Leu Pro Lys Gly Asp Phe Phe Pro Pro Glu Arg His Ser
                245                 250                 255

<210> 184
<211> 188
<212> PRT
<213> Homo sapien

<400> 184
Leu Ser Gly Ser Cys Ile Arg Arg Glu Gln Thr Pro Glu Lys Glu Lys
1               5                   10                  15
Gln Val Val Leu Phe Glu Glu Ala Ser Trp Thr Cys Thr Pro Ala Cys
            20                  25                  30
Gly Asp Glu Pro Arg Thr Val Ile Leu Leu Ser Ser Met Leu Ala Asp
        35                  40                  45
His Arg Leu Lys Leu Glu Asp Tyr Lys Asp Arg Leu Lys Ser Gly Glu
    50                  55                  60
```

```
His Leu Asn Pro Asp Gln Leu Glu Ala Val Glu Lys Tyr Glu Glu Val
65                  70                  75                  80
Leu His Asn Leu Glu Phe Ala Lys Glu Leu Gln Lys Thr Phe Ser Gly
                85                  90                  95
Leu Ser Leu Asp Leu Leu Lys Ala Gln Lys Lys Ala Gln Arg Arg Glu
            100                 105                 110
His Met Leu Lys Leu Glu Ala Glu Lys Lys Lys Leu Arg Thr Ile Leu
        115                 120                 125
Gln Val Gln Tyr Val Leu Gln Asn Leu Thr Gln Glu His Val Gln Lys
    130                 135                 140
Asp Phe Lys Gly Gly Leu Asn Gly Ala Val Tyr Leu Pro Ser Lys Glu
145                 150                 155                 160
Leu Asp Tyr Leu Ile Lys Phe Ser Lys Leu Thr Cys Pro Glu Arg Asn
                165                 170                 175
Glu Ser Leu Arg Gln Thr Leu Glu Gly Ser Thr Val
            180                 185


      <210> 185
      <211> 746
      <212> PRT
      <213> Homo sapien

      <400> 185
Asp Lys His Leu Lys Asp Leu Leu Ser Lys Leu Leu Asn Ser Gly Tyr
 1               5                  10                  15
Phe Glu Ser Ile Pro Val Pro Lys Asn Ala Lys Glu Lys Glu Val Pro
            20                  25                  30
Leu Glu Glu Glu Met Leu Ile Gln Ser Glu Lys Lys Thr Gln Leu Ser
        35                  40                  45
Lys Thr Glu Ser Val Lys Glu Ser Glu Ser Leu Met Glu Phe Ala Gln
    50                  55                  60
Pro Glu Ile Gln Pro Gln Glu Phe Leu Asn Arg Arg Tyr Met Thr Glu
65                  70                  75                  80
Val Asp Tyr Ser Asn Lys Gln Gly Glu Glu Gln Pro Trp Glu Ala Asp
                85                  90                  95
Tyr Ala Arg Lys Pro Asn Leu Pro Lys Arg Trp Asp Met Leu Thr Glu
            100                 105                 110
Pro Asp Gly Gln Glu Lys Lys Gln Glu Ser Phe Lys Ser Trp Glu Ala
        115                 120                 125
Ser Gly Lys His Gln Glu Val Ser Lys Pro Ala Val Ser Leu Glu Gln
    130                 135                 140
Arg Lys Gln Asp Thr Ser Lys Leu Arg Ser Thr Leu Pro Glu Glu Gln
145                 150                 155                 160
Lys Lys Gln Glu Ile Ser Lys Ser Lys Pro Ser Pro Ser Gln Trp Lys
                165                 170                 175
Gln Asp Thr Pro Lys Ser Lys Ala Gly Tyr Val Gln Glu Glu Gln Lys
            180                 185                 190
Lys Gln Glu Thr Pro Lys Leu Trp Pro Val Gln Leu Gln Lys Glu Gln
        195                 200                 205
Asp Pro Lys Lys Gln Thr Pro Lys Ser Trp Thr Pro Ser Met Gln Ser
    210                 215                 220
Glu Gln Asn Thr Thr Lys Ser Trp Thr Thr Pro Met Cys Glu Glu Gln
225                 230                 235                 240
Asp Ser Lys Gln Pro Glu Thr Pro Lys Ser Trp Glu Asn Asn Val Glu
```

```
                    245                 250                 255
Ser Gln Lys His Ser Leu Thr Ser Gln Ser Gln Ile Ser Pro Lys Ser
            260                 265                 270
Trp Gly Val Ala Thr Ala Ser Leu Ile Pro Asn Asp Gln Leu Leu Pro
        275                 280                 285
Arg Lys Leu Asn Thr Glu Pro Lys Asp Val Pro Lys Pro Val His Gln
    290                 295                 300
Pro Val Gly Ser Ser Ser Thr Leu Pro Lys Asp Pro Val Leu Arg Lys
305                 310                 315                 320
Glu Lys Leu Gln Asp Leu Met Thr Gln Ile Gln Gly Thr Cys Asn Phe
                325                 330                 335
Met Gln Glu Ser Val Leu Asp Phe Asp Lys Pro Ser Ser Ala Ile Pro
            340                 345                 350
Thr Ser Gln Pro Pro Ser Ala Thr Pro Gly Ser Pro Val Ala Ser Lys
        355                 360                 365
Glu Gln Asn Leu Ser Ser Gln Ser Asp Phe Leu Gln Glu Pro Leu Gln
    370                 375                 380
Val Phe Asn Val Asn Ala Pro Leu Pro Pro Arg Lys Glu Gln Glu Ile
385                 390                 395                 400
Lys Glu Ser Pro Tyr Ser Pro Gly Tyr Asn Gln Ser Phe Thr Thr Ala
                405                 410                 415
Ser Thr Gln Thr Pro Pro Gln Cys Gln Leu Pro Ser Ile His Val Glu
            420                 425                 430
Gln Thr Val His Ser Gln Glu Thr Ala Ala Asn Tyr His Pro Asp Gly
        435                 440                 445
Thr Ile Gln Val Ser Asn Gly Ser Leu Ala Phe Tyr Pro Ala Gln Thr
    450                 455                 460
Asn Val Phe Pro Arg Pro Thr Gln Pro Phe Val Asn Ser Arg Gly Ser
465                 470                 475                 480
Val Arg Gly Cys Thr Arg Gly Gly Arg Leu Ile Thr Asn Ser Tyr Arg
                485                 490                 495
Ser Pro Gly Gly Tyr Lys Gly Phe Asp Thr Tyr Arg Gly Leu Pro Ser
            500                 505                 510
Ile Ser Asn Gly Asn Tyr Ser Gln Leu Gln Phe Gln Ala Arg Glu Tyr
        515                 520                 525
Ser Gly Ala Pro Tyr Ser Gln Arg Asp Asn Phe Gln Gln Cys Tyr Lys
    530                 535                 540
Arg Gly Gly Thr Ser Gly Gly Pro Arg Ala Asn Ser Arg Ala Gly Trp
545                 550                 555                 560
Ser Asp Ser Ser Gln Val Ser Ser Pro Glu Arg Asp Asn Glu Thr Phe
                565                 570                 575
Asn Ser Gly Asp Ser Gly Gln Gly Asp Ser Arg Ser Met Thr Pro Val
            580                 585                 590
Asp Val Pro Val Thr Asn Pro Ala Ala Thr Ile Leu Pro Val His Val
        595                 600                 605
Tyr Pro Leu Pro Gln Gln Met Arg Val Ala Phe Ser Ala Ala Arg Thr
    610                 615                 620
Ser Asn Leu Ala Pro Gly Thr Leu Asp Gln Pro Ile Val Phe Asp Leu
625                 630                 635                 640
Leu Leu Asn Asn Leu Gly Glu Thr Phe Asp Leu Gln Leu Gly Arg Phe
                645                 650                 655
Asn Cys Pro Val Asn Gly Thr Tyr Val Phe Ile Phe His Met Leu Lys
            660                 665                 670
Leu Ala Val Asn Val Pro Leu Tyr Val Asn Leu Met Lys Asn Glu Glu
```

```
                                                            685
                                          680
        675
Val Leu Val Ser Ala Tyr Ala Asn Asp Gly Ala Pro Asp His Glu Thr
                        695                 700
    690
Ala Ser Asn His Ala Ile Leu Gln Leu Phe Gln Gly Asp Gln Ile Trp
705                 710                 715                 720
Leu Arg Leu His Arg Gly Ala Ile Tyr Gly Ser Ser Trp Lys Tyr Ser
                725                 730                 735

Thr Phe Ser Gly Tyr Leu Leu Tyr Gln Asp
            740                 745


<210> 186
<211> 705
<212> PRT
<213> Homo sapien

<400> 186
Ala Leu Leu Asn Val Arg Gln Pro Pro Ser Thr Thr Thr Phe Val Leu
1               5                   10                  15
Asn Gln Ile Asn His Leu Pro Pro Leu Gly Ser Thr Ile Val Met Thr
            20                  25                  30
Lys Thr Pro Pro Val Thr Thr Asn Arg Gln Thr Ile Thr Leu Thr Lys
        35                  40                  45
Phe Ile Gln Thr Thr Ala Ser Thr Arg Pro Ser Val Ser Ala Pro Thr
    50                  55                  60
Val Arg Asn Ala Met Thr Ser Ala Pro Ser Lys Asp Gln Val Gln Leu
65                  70                  75                  80
Lys Asp Leu Leu Lys Asn Asn Ser Leu Asn Glu Leu Met Lys Leu Lys
                85                  90                  95
Pro Pro Ala Asn Ile Ala Gln Pro Val Ala Thr Ala Ala Thr Asp Val
            100                 105                 110
Ser Asn Gly Thr Val Lys Lys Glu Ser Ser Asn Lys Glu Gly Ala Arg
        115                 120                 125
Met Trp Ile Asn Asp Met Lys Met Arg Ser Phe Ser Pro Thr Met Lys
    130                 135                 140
Val Pro Val Val Lys Glu Asp Asp Glu Pro Glu Glu Glu Asp Glu Glu
145                 150                 155                 160
Glu Met Gly His Ala Glu Thr Tyr Ala Glu Tyr Met Pro Ile Lys Leu
                165                 170                 175
Lys Ile Gly Leu Arg His Pro Asp Ala Val Val Glu Thr Ser Ser Leu
            180                 185                 190
Ser Ser Val Thr Pro Pro Asp Val Trp Tyr Lys Thr Ser Ile Ser Glu
        195                 200                 205
Glu Thr Ile Asp Asn Gly Trp Leu Ser Ala Leu Gln Leu Glu Ala Ile
    210                 215                 220
Thr Tyr Ala Ala Gln Gln His Glu Thr Phe Leu Pro Asn Gly Asp Arg
225                 230                 235                 240
Ala Gly Phe Leu Ile Gly Asp Gly Ala Gly Val Gly Lys Gly Arg Thr
                245                 250                 255
Ile Ala Gly Ile Ile Tyr Glu Asn Tyr Leu Leu Ser Arg Lys Arg Ala
            260                 265                 270
Leu Trp Phe Ser Val Ser Asn Asp Leu Lys Tyr Asp Ala Glu Arg Asp
        275                 280                 285
Leu Arg Asp Ile Gly Ala Lys Asn Ile Leu Val His Ser Leu Asn Lys
    290                 295                 300
```

```
Phe Lys Tyr Gly Lys Ile Ser Ser Lys His Asn Gly Ser Val Lys Lys
305                 310                 315                 320
Gly Val Ile Phe Ala Thr Tyr Ser Ser Leu Ile Gly Glu Ser Gln Ser
                325                 330                 335
Gly Gly Lys Tyr Lys Thr Arg Leu Lys Gln Leu Leu His Trp Cys Gly
            340                 345                 350
Asp Asp Phe Asp Gly Val Ile Val Phe Asp Glu Cys His Lys Ala Lys
        355                 360                 365
Asn Leu Cys Pro Val Gly Ser Ser Lys Pro Thr Lys Thr Gly Leu Ala
    370                 375                 380
Val Leu Glu Leu Gln Asn Lys Leu Pro Lys Ala Arg Val Val Tyr Ala
385                 390                 395                 400
Ser Ala Thr Gly Ala Ser Glu Pro Arg Asn Met Ala Tyr Met Asn Arg
                405                 410                 415
Leu Gly Ile Trp Gly Glu Gly Thr Pro Phe Arg Glu Phe Ser Asp Phe
            420                 425                 430
Ile Gln Ala Val Glu Arg Arg Gly Val Gly Ala Met Glu Ile Val Ala
        435                 440                 445
Met Asp Met Lys Leu Arg Gly Met Tyr Ile Ala Arg Gln Leu Ser Phe
    450                 455                 460
Thr Gly Val Thr Phe Lys Ile Glu Glu Val Leu Leu Ser Gln Ser Tyr
465                 470                 475                 480
Val Lys Met Tyr Asn Lys Ala Val Lys Leu Trp Val Ile Ala Arg Glu
                485                 490                 495
Arg Phe Gln Gln Ala Ala Asp Leu Ile Asp Ala Glu Gln Arg Met Lys
            500                 505                 510
Lys Ser Met Trp Gly Gln Phe Trp Ser Ala His Gln Arg Phe Phe Lys
        515                 520                 525
Tyr Leu Cys Ile Ala Ser Lys Val Lys Arg Val Val Gln Leu Ala Arg
    530                 535                 540
Glu Glu Ile Lys Asn Gly Lys Cys Val Val Ile Gly Leu Gln Ser Thr
545                 550                 555                 560
Gly Glu Ala Arg Thr Leu Glu Ala Leu Glu Glu Gly Gly Gly Glu Leu
                565                 570                 575
Asn Asp Phe Val Ser Thr Ala Lys Gly Val Leu Gln Ser Leu Ile Glu
            580                 585                 590
Lys His Phe Pro Ala Pro Asp Arg Lys Lys Leu Tyr Ser Leu Leu Gly
        595                 600                 605
Ile Asp Leu Thr Ala Pro Ser Asn Asn Ser Ser Pro Arg Asp Ser Pro
    610                 615                 620
Cys Lys Glu Asn Lys Ile Lys Lys Arg Lys Gly Glu Glu Ile Thr Arg
625                 630                 635                 640
Glu Ala Lys Lys Ala Arg Lys Val Gly Gly Leu Thr Gly Ser Ser Ser
                645                 650                 655
Asp Asp Ser Gly Ser Glu Ser Asp Ala Ser Asp Asn Glu Glu Ser Asp
            660                 665                 670
Tyr Glu Ser Ser Lys Asn Met Ser Ser Gly Asp Asp Asp Asp Phe Asn
        675                 680                 685
Pro Phe Leu Asp Glu Ser Asn Glu Asp Asp Glu Asn Asp Pro Trp Leu
    690                 695                 700
Ile
705
```

<210> 187

<211> 595
<212> PRT
<213> Homo sapien

<400> 187
Glu Ser Pro Arg His Arg Gly Glu Gly Gly Gly Glu Trp Gly Pro Gly
1   5   10   15
Val Pro Arg Glu Arg Arg Glu Ser Ala Gly Glu Trp Gly Ala Asp Thr
            20   25   30
Pro Lys Glu Gly Gly Glu Ser Ala Gly Glu Trp Gly Ala Glu Val Pro
        35   40   45
Arg Gly Arg Gly Glu Gly Ala Gly Glu Trp Gly Pro Asp Thr Pro Lys
    50   55   60
Glu Arg Gly Gln Gly Val Arg Glu Trp Gly Pro Glu Ile Pro Gln Glu
65   70   75   80
His Gly Glu Ala Thr Arg Asp Trp Ala Leu Glu Ser Pro Arg Ala Leu
                85   90   95
Gly Glu Asp Ala Arg Glu Leu Gly Ser Ser Pro His Asp Arg Gly Ala
            100   105   110
Ser Pro Arg Asp Leu Ser Gly Glu Ser Pro Cys Thr Gln Arg Ser Gly
        115   120   125
Leu Leu Pro Glu Arg Arg Gly Asp Ser Pro Trp Pro Pro Trp Pro Ser
    130   135   140
Pro Gln Glu Arg Asp Ala Gly Thr Arg Asp Arg Glu Glu Ser Pro Arg
145   150   155   160
Asp Trp Gly Gly Ala Glu Ser Pro Arg Gly Trp Glu Ala Gly Pro Arg
                165   170   175
Glu Trp Gly Pro Ser Pro Ser Gly His Gly Asp Gly Pro Arg Arg Arg
            180   185   190
Pro Arg Lys Arg Arg Gly Arg Lys Gly Arg Met Gly Arg Gln His Glu
        195   200   205
Ala Ala Ala Thr Ala Ala Thr Ala Ala Thr Ala Thr Gly Gly Thr Ala
    210   215   220
Glu Glu Ala Gly Ala Ser Ala Pro Glu Ser Gln Ala Gly Gly Gly Pro
225   230   235   240
Arg Gly Arg Ala Arg Gly Pro Arg Gln Gln Gly Arg Arg Arg His Gly
                245   250   255
Thr Gln Arg Arg Arg Gly Pro Pro Gln Ala Arg Glu Glu Gly Pro Arg
            260   265   270
Asp Ala Thr Thr Ile Leu Gly Leu Gly Thr Pro Ser Gly Glu Gln Arg
        275   280   285
Ala Asp Gln Ser Gln Ala Leu Pro Ala Leu Ala Gly Ala Ala Ala Ala
    290   295   300
His Ala His Ala Ile Pro Gly Ala Gly Pro Ala Ala Ala Pro Val Gly
305   310   315   320
Gly Arg Gly Arg Arg Gly Gly Trp Arg Gly Gly Arg Arg Gly Gly Ser
                325   330   335
Ala Gly Ala Gly Gly Gly Gly Arg Gly Gly Arg Gly Arg Gly Arg Gly
            340   345   350
Gly Gly Arg Gly Gly Gly Gly Ala Gly Arg Gly Gly Gly Ala Ala Gly
        355   360   365
Pro Arg Glu Gly Ala Ser Ser Pro Gly Ala Arg Arg Gly Glu Gln Arg
    370   375   380
Arg Arg Gly Arg Gly Pro Pro Ala Ala Gly Ala Ala Gln Val Ser Ala

385 390 395 400

Arg Gly Arg Arg Ala Arg Gly Gln Arg Ala Gly Glu Glu Ala Gln Asp
405 410 415

Gly Leu Leu Pro Arg Gly Arg Asp Arg Leu Pro Leu Arg Pro Gly Asp
420 425 430

Ala Asn Gln Arg Ala Glu Arg Pro Gly Pro Pro Arg Gly Gly His Gly
435 440 445

Pro Val Asn Ala Ser Ser Ala Pro Asp Thr Ser Pro Pro Arg His Pro
450 455 460

Arg Arg Trp Val Ser Gln Gln Arg Gln Arg Leu Trp Arg Gln Phe Arg
465 470 475 480

Val Gly Gly Gly Phe Pro Pro Pro Pro Pro Ser Arg Pro Pro Ala Val
485 490 495

Leu Leu Pro Leu Leu Arg Leu Ala Cys Ala Gly Asp Pro Gly Ala Thr
500 505 510

Arg Pro Gly Pro Arg Arg Pro Ala Arg Arg Pro Arg Gly Glu Leu Ile
515 520 525

Pro Arg Arg Pro Asp Pro Ala Ala Pro Ser Glu Glu Gly Leu Arg Met
530 535 540

Glu Ser Ser Val Asp Asp Gly Ala Thr Ala Thr Thr Ala Asp Ala Ala
545 550 555 560

Ser Gly Glu Ala Pro Glu Ala Gly Pro Ser Pro Ser His Ser Pro Thr
565 570 575

Met Cys Gln Thr Gly Gly Pro Gly Pro Pro Pro Pro Gln Pro Pro Arg
580 585 590

Trp Leu Pro
595

<210> 188
<211> 376
<212> PRT
<213> Homo sapien

<400> 188
Glu Met Arg Lys Phe Asp Val Pro Ser Met Glu Ser Thr Leu Asn Gln
1 5 10 15

Pro Ala Met Leu Glu Thr Leu Tyr Ser Asp Pro His Tyr Arg Ala His
20 25 30

Phe Pro Asn Pro Arg Pro Asp Thr Asn Lys Asp Val Tyr Lys Val Leu
35 40 45

Pro Glu Ser Lys Lys Ala Pro Gly Ser Gly Ala Val Phe Glu Arg Asn
50 55 60

Gly Pro His Ala Ser Ser Ser Gly Val Leu Pro Leu Gly Leu Gln Pro
65 70 75 80

Ala Pro Gly Leu Ser Lys Ser Leu Ser Ser Gln Val Trp Gln Pro Ser
85 90 95

Pro Asp Pro Trp His Pro Gly Glu Gln Ser Cys Glu Leu Ser Thr Cys
100 105 110

Arg Gln Gln Leu Glu Leu Ile Arg Leu Gln Met Glu Gln Met Gln Leu
115 120 125

Gln Asn Gly Ala Met Cys His His Pro Ala Ala Phe Ala Pro Leu Leu
130 135 140

Pro Thr Leu Glu Pro Ala Gln Trp Leu Ser Ile Leu Asn Ser Asn Glu
145 150 155 160

```
His Leu Leu Lys Glu Lys Glu Leu Leu Ile Asp Lys Gln Arg Lys His
                165                 170                 175
Ile Ser Gln Leu Glu Gln Lys Val Arg Glu Ser Glu Leu Gln Val His
            180                 185                 190
Ser Ala Leu Leu Gly Arg Pro Ala Pro Phe Gly Asp Val Cys Leu Leu
        195                 200                 205
Arg Leu Gln Glu Leu Gln Arg Glu Asn Thr Phe Leu Arg Ala Gln Phe
    210                 215                 220
Ala Gln Lys Thr Glu Ala Leu Ser Lys Glu Lys Met Glu Leu Glu Lys
225                 230                 235                 240
Lys Leu Ser Ala Ser Glu Val Glu Ile Gln Leu Ile Arg Glu Ser Leu
                245                 250                 255
Lys Val Thr Leu Gln Lys His Ser Glu Glu Gly Lys Lys Gln Glu Glu
            260                 265                 270
Arg Val Lys Gly Arg Asp Lys His Ile Asn Asn Leu Lys Lys Lys Cys
        275                 280                 285
Gln Lys Glu Ser Glu Gln Asn Arg Glu Lys Gln Gln Arg Ile Glu Thr
    290                 295                 300
Leu Glu Arg Tyr Leu Ala Asp Leu Pro Thr Leu Glu Asp His Gln Lys
305                 310                 315                 320
Gln Thr Glu Gln Leu Lys Asp Ala Glu Leu Lys Asn Thr Glu Leu Gln
                325                 330                 335
Glu Arg Val Ala Glu Leu Glu Thr Leu Leu Glu Asp Thr Gln Ala Thr
            340                 345                 350
Cys Arg Glu Lys Glu Val Gln Leu Glu Ser Leu Arg Gln Arg Glu Ala
        355                 360                 365
Asp Leu Ser Ser Ala Arg His Arg
    370                 375
```

<210> 189
<211> 160
<212> PRT
<213> Homo sapien

<400> 189

```
Met Leu Glu Ala His Arg Arg Gln Arg His Pro Phe Leu Leu Leu Gly
1               5                   10                  15
Thr Thr Ala Asn Arg Thr Gln Ser Leu Asn Tyr Gly Cys Ile Val Glu
            20                  25                  30
Asn Pro Gln Thr His Glu Val Leu His Tyr Val Glu Lys Pro Ser Thr
        35                  40                  45
Phe Ile Ser Asp Ile Ile Asn Cys Gly Ile Tyr Leu Phe Ser Pro Glu
    50                  55                  60
Ala Leu Lys Pro Leu Arg Asp Val Phe Gln Arg Asn Gln Gln Asp Gly
65                  70                  75                  80
Gln Leu Glu Asp Ser Pro Gly Leu Trp Pro Gly Ala Gly Thr Ile Arg
                85                  90                  95
Leu Glu Gln Asp Val Phe Ser Ala Leu Ala Gly Gln Gly Gln Ile Tyr
            100                 105                 110
Val His Leu Thr Asp Gly Ile Trp Ser Gln Ile Lys Ser Ala Gly Ser
        115                 120                 125
Ala Leu Tyr Ala Ser Arg Leu Tyr Leu Ser Arg Tyr Gln Asp Thr His
    130                 135                 140
Pro Glu Arg Leu Ala Lys His Thr Pro Gly Gly Pro Trp Ile Arg Gly
```

```
145                 150                 155                 160

<210> 190
<211> 146
<212> PRT
<213> Homo sapien

<400> 190
Met Asp Pro Arg Ala Ser Leu Leu Leu Leu Gly Asn Val Tyr Ile His
 1               5                  10                  15
Pro Thr Ala Lys Val Ala Pro Ser Ala Val Leu Gly Pro Asn Val Ser
            20                  25                  30
Ile Gly Lys Gly Val Thr Val Gly Glu Gly Val Arg Leu Arg Glu Ser
        35                  40                  45
Ile Val Leu His Gly Ala Thr Leu Gln Glu His Thr Cys Val Leu His
    50                  55                  60
Ser Ile Val Gly Trp Gly Ser Thr Val Gly Arg Trp Ala Arg Val Glu
65                  70                  75                  80
Gly Thr Pro Ser Asp Pro Asn Pro Asn Asp Pro Arg Ala Arg Met Asp
                85                  90                  95
Ser Glu Ser Leu Phe Lys Asp Gly Lys Leu Leu Pro Ala Ile Thr Ile
            100                 105                 110
Leu Gly Cys Arg Val Arg Ile Pro Ala Glu Val Leu Ile Leu Asn Ser
        115                 120                 125
Ile Val Leu Pro His Lys Glu Leu Ser Arg Ser Phe Thr Asn Gln Ile
    130                 135                 140
Ile Leu
145

<210> 191
<211> 704
<212> PRT
<213> Homo sapien

<400> 191
Glu Gly Gly Cys Ala Ala Gly Arg Gly Arg Glu Leu Glu Pro Glu Leu
 1               5                  10                  15
Glu Pro Gly Pro Gly Pro Gly Ser Ala Leu Glu Pro Gly Glu Glu Phe
            20                  25                  30
Glu Ile Val Asp Arg Ser Gln Leu Pro Gly Pro Gly Asp Leu Arg Ser
        35                  40                  45
Ala Thr Arg Pro Arg Ala Ala Glu Gly Trp Ser Ala Pro Ile Leu Thr
    50                  55                  60
Leu Ala Arg Arg Ala Thr Gly Asn Leu Ser Ala Ser Cys Gly Ser Ala
65                  70                  75                  80
Leu Arg Ala Ala Ala Gly Leu Gly Gly Gly Asp Ser Gly Asp Gly Thr
                85                  90                  95
Ala Arg Ala Ala Ser Lys Cys Gln Met Met Glu Glu Arg Ala Asn Leu
            100                 105                 110
Met His Met Met Lys Leu Ser Ile Lys Val Leu Leu Gln Ser Ala Leu
        115                 120                 125
Ser Leu Gly Arg Ser Leu Asp Ala Asp His Ala Pro Leu Gln Gln Phe
    130                 135                 140
Phe Val Val Met Glu His Cys Leu Lys His Gly Leu Lys Val Lys Lys
```

```
145                 150                 155                 160
Ser Phe Ile Gly Gln Asn Lys Ser Phe Phe Gly Pro Leu Glu Leu Val
                165                 170                 175
Glu Lys Leu Cys Pro Glu Ala Ser Asp Ile Ala Thr Ser Val Arg Asn
            180                 185                 190
Leu Pro Glu Leu Lys Thr Ala Val Gly Arg Gly Arg Ala Trp Leu Tyr
        195                 200                 205
Leu Ala Leu Met Gln Lys Lys Leu Ala Asp Tyr Leu Lys Val Leu Ile
    210                 215                 220
Asp Asn Lys His Leu Leu Ser Glu Phe Tyr Glu Pro Glu Ala Leu Met
225                 230                 235                 240
Met Glu Glu Glu Gly Met Val Ile Val Gly Leu Leu Val Gly Leu Asn
                245                 250                 255
Val Leu Asp Ala Asn Leu Cys Leu Lys Gly Glu Asp Leu Asp Ser Gln
            260                 265                 270
Val Gly Val Ile Asp Phe Ser Leu Tyr Leu Lys Asp Val Gln Asp Leu
        275                 280                 285
Asp Gly Gly Lys Glu His Glu Arg Ile Thr Asp Val Leu Asp Gln Lys
    290                 295                 300
Asn Tyr Val Glu Glu Leu Asn Arg His Leu Ser Cys Thr Val Gly Asp
305                 310                 315                 320
Leu Gln Thr Lys Ile Asp Gly Leu Glu Lys Thr Asn Ser Lys Leu Gln
                325                 330                 335
Glu Glu Leu Ser Ala Ala Thr Asp Arg Ile Cys Ser Leu Gln Glu Glu
            340                 345                 350
Gln Gln Gln Leu Arg Glu Gln Asn Glu Leu Ile Arg Glu Arg Ser Glu
        355                 360                 365
Lys Ser Val Glu Ile Thr Lys Gln Asp Thr Lys Val Glu Leu Glu Thr
    370                 375                 380
Tyr Lys Gln Thr Arg Gln Gly Leu Asp Glu Met Tyr Ser Asp Val Trp
385                 390                 395                 400
Lys Gln Leu Lys Glu Glu Lys Lys Val Arg Leu Glu Leu Glu Lys Glu
                405                 410                 415
Leu Glu Leu Gln Ile Gly Met Lys Thr Glu Met Glu Ile Ala Met Lys
            420                 425                 430
Leu Leu Glu Lys Asp Thr His Glu Lys Gln Asp Thr Leu Val Ala Leu
        435                 440                 445
Arg Gln Gln Leu Glu Glu Val Lys Ala Ile Asn Leu Gln Met Phe His
    450                 455                 460
Lys Ala Gln Asn Ala Glu Ser Ser Leu Gln Gln Lys Asn Glu Ala Ile
465                 470                 475                 480
Thr Ser Phe Glu Gly Lys Thr Asn Gln Val Met Ser Ser Met Lys Gln
                485                 490                 495
Met Glu Glu Arg Leu Gln His Ser Glu Arg Ala Arg Gln Gly Ala Glu
            500                 505                 510
Glu Arg Ser His Lys Leu Gln Gln Glu Leu Gly Gly Arg Ile Gly Ala
        515                 520                 525
Leu Gln Leu Gln Leu Ser Gln Leu His Glu Gln Cys Ser Ser Leu Glu
    530                 535                 540
Lys Glu Leu Lys Ser Glu Lys Glu Gln Arg Gln Ala Leu Gln Arg Glu
545                 550                 555                 560
Leu Gln His Glu Lys Asp Thr Ser Ser Leu Leu Arg Met Glu Leu Gln
                565                 570                 575
Gln Val Glu Gly Leu Lys Lys Glu Leu Arg Glu Leu Gln Asp Glu Lys
```

```
            580                 585                 590
Ala Glu Leu Gln Lys Ile Cys Glu Glu Gln Glu Gln Ala Leu Gln Glu
        595                 600                 605
Met Gly Leu His Leu Ser Gln Ser Lys Leu Lys Met Glu Asp Ile Lys
    610                 615                 620
Glu Val Asn Gln Ala Leu Lys Gly His Ala Trp Leu Lys Asp Asp Glu
625                 630                 635                 640
Ala Thr His Cys Arg Gln Cys Glu Lys Glu Phe Ser Ile Ser Arg Arg
                645                 650                 655
Lys His His Cys Arg Asn Cys Gly His Ile Phe Cys Asn Thr Cys Ser
            660                 665                 670
Ser Asn Glu Leu Ala Leu Pro Ser Tyr Pro Lys Pro Val Arg Val Cys
        675                 680                 685
Asp Ser Cys His Thr Leu Leu Leu Gln Arg Cys Ser Ser Thr Ala Ser
    690                 695                 700
```

```
<210> 192
<211> 331
<212> PRT
<213> Homo sapien

<400> 192
Arg Ala Gly Ala Ser Ala Met Ala Leu Arg Lys Glu Leu Leu Lys Ser
1               5                   10                  15
Ile Trp Tyr Ala Phe Thr Ala Leu Asp Val Glu Lys Ser Gly Lys Val
            20                  25                  30
Ser Lys Ser Gln Leu Lys Val Leu Ser His Asn Leu Tyr Thr Val Leu
        35                  40                  45
His Ile Pro His Asp Pro Val Ala Leu Glu Glu His Phe Arg Asp Asp
    50                  55                  60
Asp Asp Gly Pro Val Ser Ser Gln Gly Tyr Met Pro Tyr Leu Asn Lys
65                  70                  75                  80
Tyr Ile Leu Asp Lys Val Glu Glu Gly Ala Phe Val Lys Glu His Phe
                85                  90                  95
Asp Glu Leu Cys Trp Thr Leu Thr Ala Lys Lys Asn Tyr Arg Ala Asp
            100                 105                 110
Ser Asn Gly Asn Ser Met Leu Ser Asn Gln Asp Ala Phe Arg Leu Trp
        115                 120                 125
Cys Leu Phe Asn Phe Leu Ser Glu Asp Lys Tyr Pro Leu Ile Met Val
    130                 135                 140
Pro Asp Glu Val Glu Tyr Leu Leu Lys Lys Val Leu Ser Ser Met Ser
145                 150                 155                 160
Leu Glu Val Ser Leu Gly Glu Leu Glu Glu Leu Leu Ala Gln Glu Ala
                165                 170                 175
Gln Val Ala Gln Thr Thr Gly Gly Leu Ser Val Trp Gln Phe Leu Glu
            180                 185                 190
Leu Phe Asn Ser Gly Arg Cys Leu Arg Gly Val Gly Arg Asp Thr Leu
        195                 200                 205
Ser Met Ala Ile His Glu Val Tyr Gln Glu Leu Ile Gln Asp Val Leu
    210                 215                 220
Lys Gln Gly Tyr Leu Trp Lys Arg Gly His Leu Arg Arg Asn Trp Ala
225                 230                 235                 240
Glu Arg Trp Phe Gln Leu Gln Pro Ser Cys Leu Cys Tyr Phe Gly Ser
                245                 250                 255
```

Glu Glu Cys Lys Glu Lys Arg Gly Ile Ile Pro Leu Asp Ala His Cys
260 265 270
Cys Val Glu Val Leu Pro Asp Arg Asp Gly Lys Arg Cys Met Phe Cys
275 280 285
Val Lys Thr Ala Thr Arg Thr Tyr Glu Met Ser Ala Ser Asp Thr Arg
290 295 300
Gln Arg Gln Glu Trp Thr Ala Ala Ile Gln Met Ala Ile Arg Leu Gln
305 310 315 320
Ala Glu Gly Lys Thr Ser Leu His Lys Asp Leu
325 330

<210> 193
<211> 475
<212> PRT
<213> Homo sapien

<400> 193
Lys Asn Ser Pro Leu Leu Ser Val Ser Ser Gln Thr Ile Thr Lys Glu
1 5 10 15
Asn Asn Arg Asn Val His Leu Glu His Ser Glu Gln Asn Pro Gly Ser
20 25 30
Ser Ala Gly Asp Thr Ser Ala Ala His Gln Val Val Leu Gly Glu Asn
35 40 45
Leu Ile Ala Thr Ala Leu Cys Leu Ser Gly Ser Gly Ser Gln Ser Asp
50 55 60
Leu Lys Asp Val Ala Ser Thr Ala Gly Glu Glu Gly Asp Thr Ser Leu
65 70 75 80
Arg Glu Ser Leu His Pro Val Thr Arg Ser Leu Lys Ala Gly Cys His
85 90 95
Thr Lys Gln Leu Ala Ser Arg Asn Cys Ser Glu Glu Lys Ser Pro Gln
100 105 110
Thr Ser Ile Leu Lys Glu Gly Asn Arg Asp Thr Ser Leu Asp Phe Arg
115 120 125
Pro Val Val Ser Pro Ala Asn Gly Val Glu Gly Val Arg Val Asp Gln
130 135 140
Asp Asp Asp Gln Asp Ser Ser Ser Leu Lys Leu Ser Gln Asn Ile Ala
145 150 155 160
Val Gln Thr Asp Phe Lys Thr Ala Asp Ser Glu Val Asn Thr Asp Gln
165 170 175
Asp Ile Glu Lys Asn Leu Asp Lys Met Met Thr Glu Arg Thr Leu Leu
180 185 190
Lys Glu Arg Tyr Gln Glu Val Leu Asp Lys Gln Arg Gln Val Glu Asn
195 200 205
Gln Leu Gln Val Gln Leu Lys Gln Leu Gln Gln Arg Arg Glu Glu Glu
210 215 220
Met Lys Asn His Gln Glu Ile Leu Lys Ala Ile Gln Asp Val Thr Ile
225 230 235 240
Lys Arg Glu Glu Thr Lys Lys Lys Ile Glu Lys Glu Lys Lys Glu Phe
245 250 255
Leu Gln Lys Glu Gln Asp Leu Lys Ala Glu Ile Glu Lys Leu Cys Glu
260 265 270
Lys Gly Arg Arg Glu Val Trp Glu Met Glu Leu Asp Arg Leu Lys Asn
275 280 285
Gln Asp Gly Glu Ile Asn Arg Asn Ile Met Glu Glu Thr Glu Arg Ala

```
                290                 295                 300
Trp Lys Ala Glu Ile Leu Ser Leu Glu Ser Arg Lys Glu Leu Leu Val
305                 310                 315                 320
Leu Lys Leu Glu Glu Ala Glu Lys Glu Ala Glu Leu His Leu Thr Tyr
                325                 330                 335
Leu Lys Ser Thr Pro Pro Thr Leu Glu Thr Val Arg Ser Lys Gln Glu
            340                 345                 350
Trp Glu Thr Arg Leu Asn Gly Val Arg Ile Met Lys Lys Asn Val Arg
        355                 360                 365
Asp Gln Phe Asn Ser His Ile Gln Leu Val Arg Asn Gly Ala Lys Leu
    370                 375                 380
Ser Ser Leu Pro Gln Ile Pro Thr Pro Thr Leu Pro Pro Pro Pro Ser
385                 390                 395                 400
Glu Thr Asp Phe Met Leu Gln Val Phe Gln Pro Ser Pro Ser Leu Ala
                405                 410                 415
Pro Arg Met Pro Phe Ser Ile Gly Gln Val Thr Met Pro Met Val Met
            420                 425                 430
Pro Ser Ala Asp Pro Arg Ser Leu Ser Phe Pro Ile Leu Asn Pro Ala
        435                 440                 445
Leu Ser Gln Pro Ser Gln Pro Ser Ser Pro Leu Pro Gly Ser His Gly
    450                 455                 460
Arg Asn Ser Pro Gly Leu Gly Ser Leu Val Ser
465                 470                 475

      <210> 194
      <211> 241
      <212> PRT
      <213> Homo sapien

      <400> 194
Met Ser Gly Glu Ser Ala Arg Ser Leu Gly Lys Gly Ser Ala Pro Pro
1               5                   10                  15
Gly Pro Val Pro Glu Gly Ser Ile Arg Ile Tyr Ser Met Arg Phe Cys
            20                  25                  30
Pro Phe Ala Glu Arg Thr Arg Leu Val Leu Lys Ala Lys Gly Ile Arg
        35                  40                  45
His Glu Val Ile Asn Ile Asn Leu Lys Asn Lys Pro Glu Trp Phe Phe
    50                  55                  60
Lys Lys Asn Pro Phe Gly Leu Val Pro Val Leu Glu Asn Ser Gln Gly
65                  70                  75                  80
Gln Leu Ile Tyr Glu Ser Ala Ile Thr Cys Glu Tyr Leu Asp Glu Ala
                85                  90                  95
Tyr Pro Gly Lys Lys Leu Leu Pro Asp Asp Pro Tyr Glu Lys Ala Cys
            100                 105                 110
Gln Lys Met Ile Leu Glu Leu Phe Ser Lys Val Pro Ser Leu Val Gly
        115                 120                 125
Ser Phe Ile Arg Ser Gln Asn Lys Glu Asp Tyr Ala Gly Leu Lys Glu
    130                 135                 140
Glu Phe Arg Lys Glu Phe Thr Lys Leu Glu Glu Val Leu Thr Asn Lys
145                 150                 155                 160
Lys Thr Thr Phe Phe Gly Gly Asn Ser Ile Ser Met Ile Asp Tyr Leu
                165                 170                 175
Ile Trp Pro Trp Phe Glu Arg Leu Glu Ala Met Lys Leu Asn Glu Cys
            180                 185                 190
```

Val Asp His Thr Pro Lys Leu Lys Leu Trp Met Ala Ala Met Lys Glu
195 200 205
Asp Pro Thr Val Ser Ala Leu Leu Thr Ser Glu Lys Asp Trp Gln Gly
210 215 220
Phe Leu Glu Leu Tyr Leu Gln Asn Ser Pro Glu Ala Cys Asp Tyr Gly
225 230 235 240
Leu

<210> 195
<211> 138
<212> PRT
<213> Homo sapien

<400> 195
Gln Thr Lys Ile Leu Glu Glu Asp Leu Glu Gln Ile Lys Leu Ser Leu
1 5 10 15
Arg Glu Arg Gly Arg Glu Leu Thr Thr Gln Arg Gln Leu Met Gln Glu
20 25 30
Arg Ala Glu Glu Gly Lys Gly Pro Ser Lys Ala Gln Arg Gly Ser Leu
35 40 45
Glu His Met Lys Leu Ile Leu Arg Asp Lys Glu Lys Glu Val Glu Cys
50 55 60
Gln Gln Glu His Ile His Glu Leu Gln Glu Leu Lys Asp Gln Leu Glu
65 70 75 80
Gln Gln Leu Gln Gly Leu His Arg Lys Val Gly Glu Thr Ser Leu Leu
85 90 95
Leu Ser Gln Arg Glu Gln Glu Ile Val Val Leu Gln Gln Gln Leu Gln
100 105 110
Glu Ala Arg Glu Gln Gly Glu Leu Lys Glu Gln Ser Leu Gln Ser Gln
115 120 125
Leu Asp Glu Ala Gln Arg Ala Leu Ala Gln
130 135

<210> 196
<211> 102
<212> PRT
<213> Homo sapien

<400> 196
Met Ser Lys Arg Lys Ala Pro Gln Glu Thr Leu Asn Gly Gly Ile Thr
1 5 10 15
Asp Met Leu Thr Glu Leu Ala Asn Phe Glu Lys Asn Val Ser Gln Ala
20 25 30
Ile His Lys Tyr Asn Ala Tyr Arg Lys Ala Ala Ser Val Ile Ala Lys
35 40 45
Tyr Pro His Lys Ile Lys Ser Gly Ala Glu Ala Lys Lys Leu Pro Gly
50 55 60
Val Gly Thr Lys Ile Ala Glu Lys Ile Asp Glu Phe Leu Ala Thr Gly
65 70 75 80
Lys Leu Arg Lys Leu Glu Lys Ile Arg Gln Asp Asp Thr Ser Ser Ser
85 90 95
Ile Asn Phe Leu Thr Arg
100

```
<210> 197
<211> 138
<212> PRT
<213> Homo sapien

<400> 197
Glu Ala Asn Glu Val Thr Asp Ser Ala Tyr Met Gly Ser Glu Ser Thr
1               5                   10                  15
Tyr Ser Glu Cys Glu Thr Phe Thr Asp Glu Asp Thr Ser Thr Leu Val
            20                  25                  30
His Pro Glu Leu Gln Pro Glu Gly Asp Ala Asp Ser Ala Gly Gly Ser
        35                  40                  45
Ala Val Pro Ser Glu Cys Leu Asp Ala Met Glu Glu Pro Asp His Gly
    50                  55                  60
Ala Leu Leu Leu Leu Pro Gly Arg Pro His Pro His Gly Gln Ser Val
65                  70                  75                  80
Ile Thr Val Ile Gly Gly Glu Glu His Phe Glu Asp Tyr Gly Glu Gly
                85                  90                  95
Ser Glu Ala Glu Leu Ser Pro Glu Thr Leu Cys Asn Gly Gln Leu Gly
            100                 105                 110
Cys Ser Asp Pro Ala Phe Leu Thr Pro Ser Pro Thr Lys Arg Leu Ser
        115                 120                 125
Ser Lys Lys Val Ala Arg Tyr Leu His Gln
    130                 135

<210> 198
<211> 100
<212> PRT
<213> Homo sapien

<400> 198
Met Gly Asp Val Lys Asn Phe Leu Tyr Ala Trp Cys Gly Lys Arg Lys
1               5                   10                  15
Met Thr Pro Ser Tyr Glu Ile Arg Ala Val Gly Asn Lys Asn Arg Gln
            20                  25                  30
Lys Phe Met Cys Glu Val Gln Val Glu Gly Tyr Asn Tyr Thr Gly Met
        35                  40                  45
Gly Asn Ser Thr Asn Lys Lys Asp Ala Gln Ser Asn Ala Ala Arg Asp
    50                  55                  60
Phe Val Asn Tyr Leu Val Arg Ile Asn Glu Ile Lys Ser Glu Glu Val
65                  70                  75                  80
Pro Ala Phe Gly Val Ala Ser Pro Pro Pro Leu Thr Asp Thr Pro Asp
                85                  90                  95
Thr Thr Ala Asn
            100

<210> 199
<211> 127
<212> PRT
<213> Homo sapien

<400> 199
Met Val Lys Glu Thr Thr Tyr Tyr Asp Val Leu Gly Val Lys Pro Asn
```

```
1               5                   10                  15
Ala Thr Gln Glu Glu Leu Lys Lys Ala Tyr Arg Lys Leu Ala Leu Lys
            20                  25                  30
Tyr His Pro Asp Lys Asn Pro Asn Glu Gly Glu Lys Phe Lys Gln Ile
        35                  40                  45
Ser Gln Ala Tyr Glu Val Leu Ser Asp Ala Lys Lys Arg Glu Leu Tyr
    50                  55                  60
Asp Lys Gly Gly Glu Gln Ala Ile Lys Glu Gly Gly Ala Gly Gly Gly
65                  70                  75                  80
Phe Gly Ser Pro Met Asp Ile Phe Asp Met Phe Phe Gly Gly Gly Gly
                85                  90                  95
Arg Met Gln Arg Glu Arg Arg Gly Lys Asn Val Val His Gln Leu Ser
            100                 105                 110
Val Thr Leu Glu Asp Leu Tyr Asn Gly Ala Thr Arg Lys Leu Ala
        115                 120                 125
```

```
<210> 200
<211> 90
<212> PRT
<213> Homo sapien

<400> 200
Met Ala Cys Pro Leu Asp Gln Ala Ile Gly Leu Leu Val Ala Ile Phe
1               5                   10                  15
His Lys Tyr Ser Gly Arg Glu Gly Asp Lys His Thr Leu Ser Lys Lys
            20                  25                  30
Glu Leu Lys Glu Leu Ile Gln Lys Glu Leu Thr Ile Gly Ser Lys Leu
        35                  40                  45
Gln Asp Ala Glu Ile Ala Arg Leu Met Glu Asp Leu Asp Arg Asn Lys
    50                  55                  60
Asp Gln Glu Val Asn Phe Gln Glu Tyr Val Thr Phe Leu Gly Ala Leu
65                  70                  75                  80
Ala Leu Ile Tyr Asn Glu Ala Leu Lys Gly
                85                  90
```

```
<210> 201
<211> 120
<212> PRT
<213> Homo sapien

<400> 201
Met Glu Thr Pro Ser Gln Arg Arg Ala Thr Arg Ser Gly Ala Gln Ala
1               5                   10                  15
Ser Ser Thr Pro Leu Ser Pro Thr Arg Ile Thr Arg Leu Gln Glu Lys
            20                  25                  30
Glu Asp Leu Gln Glu Leu Asn Asp Arg Leu Ala Val Tyr Ile Asp Arg
        35                  40                  45
Val Arg Ser Leu Glu Thr Glu Asn Ala Gly Leu Arg Leu Arg Ile Thr
    50                  55                  60
Glu Ser Glu Glu Val Val Ser Arg Glu Val Ser Gly Ile Lys Ala Ala
65                  70                  75                  80
Tyr Glu Ala Glu Leu Gly Asp Ala Arg Lys Thr Leu Asp Ser Val Ala
                85                  90                  95
Lys Glu Arg Ala Arg Leu Gln Leu Glu Leu Ser Lys Val Arg Glu Glu
```

105 110
100
Phe Lys Glu Leu Lys Ala Arg Asn
115 120

<210> 202
<211> 177
<212> PRT
<213> Homo sapien

<400> 202
Met Ala Ala Gly Val Glu Ala Ala Ala Glu Val Ala Ala Thr Glu Ile
1 5 10 15
Lys Met Glu Glu Glu Ser Gly Ala Pro Gly Val Pro Ser Gly Asn Gly
20 25 30
Ala Pro Gly Pro Lys Gly Glu Gly Glu Arg Pro Ala Gln Asn Glu Lys
35 40 45
Arg Lys Glu Lys Asn Ile Lys Arg Gly Gly Asn Arg Phe Glu Pro Tyr
50 55 60
Ala Asn Pro Thr Lys Arg Tyr Arg Ala Phe Ile Thr Asn Ile Pro Phe
65 70 75 80
Asp Val Lys Trp Gln Ser Leu Lys Asp Leu Val Lys Glu Lys Val Gly
85 90 95
Glu Val Thr Tyr Val Glu Leu Leu Met Asp Ala Glu Gly Lys Ser Arg
100 105 110
Gly Cys Ala Val Val Glu Phe Lys Met Glu Glu Ser Met Lys Lys Ala
115 120 125
Ala Glu Val Leu Asn Lys His Ser Leu Ser Gly Arg Pro Leu Lys Val
130 135 140
Lys Glu Asp Pro Asp Gly Glu His Ala Arg Arg Ala Met Gln Lys Ala
145 150 155 160
Gly Arg Leu Gly Ser Thr Val Phe Val Ala Asn Leu Asp Tyr Lys Val
165 170 175

Gly

<210> 203
<211> 164
<212> PRT
<213> Homo sapien

<400> 203
Met Arg Leu Ala Val Gly Ala Leu Leu Val Cys Ala Val Leu Gly Leu
1 5 10 15
Cys Leu Ala Val Pro Asp Lys Thr Val Arg Trp Cys Ala Val Ser Glu
20 25 30
His Glu Ala Thr Lys Cys Gln Ser Phe Arg Asp His Met Lys Ser Val
35 40 45
Ile Pro Ser Asp Gly Pro Ser Val Ala Cys Val Lys Lys Ala Ser Tyr
50 55 60
Leu Asp Cys Ile Arg Ala Ile Ala Ala Asn Glu Ala Asp Ala Val Thr
65 70 75 80
Leu Asp Ala Gly Leu Val Tyr Asp Ala Tyr Leu Ala Pro Asn Asn Leu
85 90 95
Lys Pro Val Val Ala Glu Phe Tyr Gly Ser Lys Glu Asp Pro Gln Thr

```
        100                 105                 110
Phe Tyr Tyr Ala Val Ala Val Val Lys Lys Asp Ser Gly Phe Gln Met
        115                 120                 125
Asn Gln Leu Arg Gly Lys Lys Ser Cys His Thr Gly Leu Gly Arg Ser
    130                 135                 140
Ala Gly Trp Asn Ile Pro Ile Gly Leu Leu Tyr Cys Asp Leu Pro Glu
145                 150                 155                 160
Pro Arg Lys Pro


<210> 204
<211> 241
<212> PRT
<213> Homo sapien

<400> 204
Met Ser Gly Glu Ser Ala Arg Ser Leu Gly Lys Gly Ser Ala Pro Pro
 1               5                  10                  15
Gly Pro Val Pro Glu Gly Ser Ile Arg Ile Tyr Ser Met Arg Phe Cys
            20                  25                  30
Pro Phe Ala Glu Arg Thr Arg Leu Val Leu Lys Ala Lys Gly Ile Arg
        35                  40                  45
His Glu Val Ile Asn Ile Asn Leu Lys Asn Lys Pro Glu Trp Phe Phe
    50                  55                  60
Lys Lys Asn Pro Phe Gly Leu Val Pro Val Leu Glu Asn Ser Gln Gly
65                  70                  75                  80
Gln Leu Ile Tyr Glu Ser Ala Ile Thr Cys Glu Tyr Leu Asp Glu Ala
                85                  90                  95
Tyr Pro Gly Lys Lys Leu Leu Pro Asp Asp Pro Tyr Glu Lys Ala Cys
            100                 105                 110
Gln Lys Met Ile Leu Glu Leu Phe Ser Lys Val Pro Ser Leu Val Gly
        115                 120                 125
Ser Phe Ile Arg Ser Gln Asn Lys Glu Asp Tyr Asp Gly Leu Lys Glu
    130                 135                 140
Glu Phe Arg Lys Glu Phe Thr Lys Leu Glu Glu Val Leu Thr Asn Lys
145                 150                 155                 160
Lys Thr Thr Phe Phe Gly Gly Asn Ser Ile Ser Met Ile Asp Tyr Leu
                165                 170                 175
Ile Trp Pro Trp Phe Glu Arg Leu Glu Ala Met Lys Leu Asn Glu Cys
            180                 185                 190
Val Asp His Thr Pro Lys Leu Lys Leu Trp Met Ala Ala Met Lys Glu
        195                 200                 205
Asp Pro Thr Val Ser Ala Leu Leu Thr Ser Glu Lys Asp Trp Gln Gly
    210                 215                 220
Phe Leu Glu Leu Tyr Leu Gln Asn Ser Pro Glu Ala Cys Asp Tyr Gly
225                 230                 235                 240
Leu


<210> 205
<211> 160
<212> PRT
<213> Homo sapien
```

```
<400> 205
Met Gln Ile Phe Val Lys Thr Leu Thr Gly Lys Thr Ile Thr Leu Glu
1               5                   10                  15
Val Glu Pro Ser Asp Thr Ile Glu Asn Val Lys Ala Lys Ile Gln Asp
            20                  25                  30
Lys Glu Gly Ile Pro Pro Asp Gln Gln Arg Leu Ile Phe Ala Gly Lys
        35                  40                  45
Gln Leu Glu Asp Gly Arg Thr Leu Ser Asp Tyr Asn Ile Gln Lys Glu
    50                  55                  60
Ser Thr Leu His Leu Val Leu Arg Leu Arg Gly Gly Met Gln Ile Phe
65                  70                  75                  80
Val Lys Thr Leu Thr Gly Lys Thr Ile Thr Leu Glu Val Glu Pro Ser
                85                  90                  95
Asp Thr Ile Glu Asn Val Lys Ala Lys Ile Gln Asp Lys Glu Gly Ile
            100                 105                 110
Pro Pro Asp Gln Gln Arg Leu Ile Phe Ala Gly Lys Gln Leu Glu Asp
        115                 120                 125
Gly Arg Thr Leu Ser Asp Tyr Asn Ile Gln Lys Glu Ser Thr Leu His
    130                 135                 140
Leu Val Leu Arg Leu Arg Gly Gly Met Gln Ile Phe Val Lys Thr Leu
145                 150                 155                 160

<210> 206
<211> 197
<212> PRT
<213> Homo sapien

<400> 206
Thr Ser Pro Ser Glu Ala Cys Ala Pro Leu Leu Ile Ser Leu Ser Thr
1               5                   10                  15
Leu Ile Tyr Asn Gly Ala Leu Pro Cys Gln Cys Asn Pro Gln Gly Ser
            20                  25                  30
Leu Ser Ser Glu Cys Asn Pro His Gly Gly Gln Cys Leu Cys Lys Pro
        35                  40                  45
Gly Val Val Gly Arg Arg Cys Asp Leu Cys Ala Pro Gly Tyr Tyr Gly
    50                  55                  60
Phe Gly Pro Thr Gly Cys Gln Gly Ala Cys Leu Gly Cys Arg Asp His
65                  70                  75                  80
Thr Gly Gly Glu His Cys Glu Arg Cys Ile Ala Gly Phe His Gly Asp
                85                  90                  95
Pro Arg Leu Pro Tyr Gly Gly Gln Cys Arg Pro Cys Pro Cys Pro Glu
            100                 105                 110
Gly Pro Gly Ser Gln Arg His Phe Ala Thr Ser Cys His Gln Asp Glu
        115                 120                 125
Tyr Ser Gln Gln Ile Val Cys His Cys Arg Ala Gly Tyr Thr Gly Leu
    130                 135                 140
Arg Cys Glu Ala Cys Ala Pro Gly His Phe Gly Asp Pro Ser Arg Pro
145                 150                 155                 160
Gly Gly Arg Cys Gln Leu Cys Glu Cys Ser Gly Asn Ile Asp Pro Met
                165                 170                 175
Asp Pro Asp Ala Cys Asp Pro His Thr Gly Gln Cys Leu Arg Cys Leu
            180                 185                 190
His His Thr Glu Gly
        195
```

<210> 207
<211> 175
<212> PRT
<213> Homo sapien

<400> 207
Ile Ile Arg Gln Gln Gly Leu Ala Ser Tyr Asp Tyr Val Arg Arg Arg
1   5   10   15
Leu Thr Ala Glu Asp Leu Phe Glu Ala Arg Ile Ile Ser Leu Glu Thr
            20   25   30
Tyr Asn Leu Leu Arg Glu Gly Thr Arg Ser Leu Arg Glu Ala Leu Glu
        35   40   45
Ala Glu Ser Ala Trp Cys Tyr Leu Tyr Gly Thr Gly Ser Val Ala Gly
    50   55   60
Val Tyr Leu Pro Gly Ser Arg Gln Thr Leu Ser Ile Tyr Gln Ala Leu
65   70   75   80
Lys Lys Gly Leu Leu Ser Ala Glu Val Ala Arg Leu Leu Leu Glu Ala
                85   90   95
Gln Ala Ala Thr Gly Phe Leu Leu Asp Pro Val Lys Gly Glu Arg Leu
            100   105   110
Thr Val Asp Glu Ala Val Arg Lys Gly Leu Val Gly Pro Glu Leu His
        115   120   125
Asp Arg Leu Leu Ser Ala Glu Arg Ala Val Thr Gly Tyr Arg Asp Pro
    130   135   140
Tyr Thr Glu Gln Thr Ile Ser Leu Phe Gln Ala Met Lys Lys Glu Leu
145   150   155   160
Ile Pro Thr Glu Glu Ala Leu Arg Leu Trp Met Pro Ser Trp Pro
                165   170   175

<210> 208
<211> 177
<212> PRT
<213> Homo sapien

<400> 208
Met Ala Ala Gly Val Glu Ala Ala Ala Glu Val Ala Ala Thr Glu Ile
1   5   10   15
Lys Met Glu Glu Glu Ser Gly Ala Pro Gly Val Pro Ser Gly Asn Gly
            20   25   30
Ala Pro Gly Pro Lys Gly Glu Gly Glu Arg Pro Ala Gln Asn Glu Lys
        35   40   45
Arg Lys Glu Lys Asn Ile Lys Arg Gly Gly Asn Arg Phe Glu Pro Tyr
    50   55   60
Ala Asn Pro Thr Lys Arg Tyr Arg Ala Phe Ile Thr Asn Ile Pro Phe
65   70   75   80
Asp Val Lys Trp Gln Ser Leu Lys Asp Leu Val Lys Glu Lys Val Gly
                85   90   95
Glu Val Thr Tyr Val Glu Leu Leu Met Asp Ala Glu Gly Lys Ser Arg
            100   105   110
Gly Cys Ala Val Val Glu Phe Lys Met Glu Glu Ser Met Lys Lys Ala
        115   120   125
Ala Glu Val Leu Asn Lys His Ser Leu Ser Gly Arg Pro Leu Lys Val
    130   135   140

```
Lys Glu Asp Pro Asp Gly Glu His Ala Arg Arg Ala Met Gln Lys Val
145                 150                 155                 160
Met Ala Thr Thr Gly Gly Met Gly Met Gly Pro Gly Gly Pro Gly Met
                165                 170                 175

Ile


     <210> 209
     <211> 196
     <212> PRT
     <213> Homo sapien

     <400> 209
Asp Leu Gln Asp Met Phe Ile Val His Thr Ile Glu Glu Ile Glu Gly
1               5                   10                  15
Leu Ile Ser Ala His Asp Gln Phe Lys Ser Thr Leu Pro Asp Ala Asp
            20                  25                  30
Arg Glu Arg Glu Ala Ile Leu Ala Ile His Lys Glu Ala Gln Arg Ile
        35                  40                  45
Ala Glu Ser Asn His Ile Lys Leu Ser Gly Ser Asn Pro Tyr Thr Thr
    50                  55                  60
Val Thr Pro Gln Ile Ile Asn Ser Lys Trp Glu Lys Val Gln Gln Leu
65                  70                  75                  80
Val Pro Lys Arg Asp His Ala Leu Leu Glu Glu Gln Ser Lys Gln Gln
                85                  90                  95
Ser Asn Glu His Leu Arg Arg Gln Phe Ala Ser Gln Ala Asn Val Val
            100                 105                 110
Gly Pro Trp Ile Gln Thr Lys Met Glu Glu Ile Gly Arg Ile Ser Ile
        115                 120                 125
Glu Met Asn Gly Thr Leu Glu Asp Gln Leu Ser His Leu Lys Gln Tyr
    130                 135                 140
Glu Arg Ser Ile Val Asp Tyr Lys Pro Asn Leu Asp Leu Leu Glu Gln
145                 150                 155                 160
Gln His Gln Leu Ile Gln Glu Ala Leu Ile Phe Asp Asn Lys His Thr
                165                 170                 175
Asn Tyr Thr Met Glu His Ile Arg Val Gly Trp Glu Gln Leu Leu Thr
            180                 185                 190
Thr Ile Ala Arg
        195

     <210> 210
     <211> 156
     <212> PRT
     <213> Homo sapien

     <400> 210
Lys Leu Thr Ile Glu Ser Thr Pro Phe Asn Val Ala Glu Gly Lys Glu
1               5                   10                  15
Val Leu Leu Leu Ala His Asn Leu Pro Gln Asn Arg Ile Gly Tyr Ser
            20                  25                  30
Trp Tyr Lys Gly Glu Arg Val Asp Gly Asn Ser Leu Ile Val Gly Tyr
        35                  40                  45
Val Ile Gly Thr Gln Gln Ala Thr Pro Gly Pro Ala Tyr Ser Gly Arg
    50                  55                  60
```

```
Glu Thr Ile Tyr Pro Asn Ala Ser Leu Leu Ile Gln Asn Val Thr Gln
65                  70                  75                  80
Asn Asp Thr Gly Phe Tyr Thr Leu Gln Val Ile Lys Ser Asp Leu Val
                85                  90                  95
Asn Glu Glu Ala Thr Gly Gln Phe His Val Tyr Pro Glu Leu Pro Lys
            100                 105                 110
Pro Ser Ile Ser Ser Asn Asn Ser Asn Pro Val Glu Asp Lys Asp Ala
        115                 120                 125
Val Ala Phe Thr Cys Glu Pro Glu Val Gln Asn Thr Thr Tyr Leu Trp
    130                 135                 140
Trp Val Asn Gly Gln Ser Leu Pro Val Ser Pro Lys
145                 150                 155

      <210> 211
      <211> 92
      <212> PRT
      <213> Homo sapien

      <400> 211
Met Glu Ser Pro Ser Ala Pro Pro His Arg Trp Cys Ile Pro Trp Gln
1               5                   10                  15
Arg Leu Leu Leu Thr Ala Ser Leu Leu Thr Phe Trp Asn Pro Pro Thr
            20                  25                  30
Thr Ala Lys Leu Thr Ile Glu Ser Thr Pro Phe Asn Val Ala Glu Gly
        35                  40                  45
Lys Glu Val Leu Leu Leu Val His Asn Leu Pro Gln His Leu Phe Gly
    50                  55                  60
Tyr Ser Trp Tyr Lys Gly Glu Arg Val Asp Gly Asn Arg Gln Ile Ile
65                  70                  75                  80
Gly Tyr Val Ile Gly Thr Gln Gln Ala Thr Pro Gly
                85                  90

      <210> 212
      <211> 142
      <212> PRT
      <213> Homo sapien

      <400> 212
Glu Lys Gln Lys Asn Lys Glu Phe Ser Gln Thr Leu Glu Asn Glu Lys
1               5                   10                  15
Asn Thr Leu Leu Ser Gln Ile Ser Thr Lys Asp Gly Glu Leu Lys Met
            20                  25                  30
Leu Gln Glu Glu Val Thr Lys Met Asn Leu Leu Asn Gln Gln Ile Gln
        35                  40                  45
Glu Glu Leu Ser Arg Val Thr Lys Leu Lys Glu Thr Ala Glu Glu Glu
    50                  55                  60
Lys Asp Asp Leu Glu Glu Arg Leu Met Asn Gln Leu Ala Glu Leu Asn
65                  70                  75                  80
Gly Ser Ile Gly Asn Tyr Cys Gln Asp Val Thr Asp Ala Gln Ile Lys
                85                  90                  95
Asn Glu Leu Leu Glu Ser Glu Met Lys Asn Leu Lys Lys Cys Val Ser
            100                 105                 110
Glu Leu Glu Glu Glu Lys Gln Gln Leu Val Lys Glu Lys Thr Lys Val
        115                 120                 125
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Glu Ser Glu Ile Arg Lys Glu Tyr Leu Glu Lys Ile Gln Gly
    130                 135                 140

<210> 213
<211> 142
<212> PRT
<213> Homo sapien

<400> 213
Gly Gly Tyr Gly Gly Gly Tyr Gly Gly Val Leu Thr Ala Ser Asp Gly
1               5                   10                  15
Leu Leu Ala Gly Asn Glu Lys Leu Thr Met Gln Asn Leu Asn Asp Arg
            20                  25                  30
Leu Ala Ser Tyr Leu Asp Lys Val Arg Ala Leu Glu Ala Ala Asn Gly
        35                  40                  45
Glu Leu Glu Val Lys Ile Arg Asp Trp Tyr Gln Lys Gln Gly Pro Gly
    50                  55                  60
Pro Ser Arg Asp Tyr Ser His Tyr Tyr Thr Thr Ile Gln Asp Leu Arg
65                  70                  75                  80
Asp Lys Ile Leu Gly Ala Thr Ile Glu Asn Ser Arg Ile Val Leu Gln
                85                  90                  95
Ile Asp Asn Ala Arg Leu Ala Ala Asp Asp Phe Arg Thr Lys Phe Glu
            100                 105                 110
Thr Glu Gln Ala Leu Arg Met Ser Val Glu Ala Asp Ile Asn Gly Leu
        115                 120                 125
Arg Arg Val Leu Asp Glu Leu Thr Leu Ala Arg Thr Asp Leu
    130                 135                 140

<210> 214
<211> 129
<212> PRT
<213> Homo sapien

<400> 214
Val Met Arg Val Asp Phe Asn Val Pro Met Lys Asn Asn Gln Ile Thr
1               5                   10                  15
Asn Asn Gln Arg Ile Lys Ala Ala Val Pro Ser Ile Lys Phe Cys Leu
            20                  25                  30
Asp Asn Gly Ala Lys Ser Val Val Leu Met Ser His Leu Gly Arg Pro
        35                  40                  45
Asp Gly Val Pro Met Pro Asp Lys Tyr Ser Leu Glu Pro Val Ala Val
    50                  55                  60
Glu Leu Arg Ser Leu Leu Gly Lys Asp Val Leu Phe Leu Lys Asp Cys
65                  70                  75                  80
Val Gly Pro Glu Val Glu Lys Ala Cys Ala Asn Pro Ala Ala Gly Ser
                85                  90                  95
Val Ile Leu Leu Glu Asn Leu Arg Phe His Val Glu Glu Glu Gly Lys
            100                 105                 110
Gly Lys Asp Ala Ser Gly Asn Lys Val Lys Ala Glu Pro Ala Lys Ile
        115                 120                 125
Glu

<210> 215
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<211> 148
<212> PRT
<213> Homo sapien

<400> 215
Met Ala Thr Leu Lys Glu Lys Leu Ile Ala Pro Val Ala Glu Glu Glu
1   5   10   15
Ala Thr Val Pro Asn Asn Lys Ile Thr Val Val Gly Val Gly Gln Val
            20   25   30
Gly Met Ala Cys Ala Ile Ser Ile Leu Gly Lys Ser Leu Ala Asp Glu
        35   40   45
Leu Ala Leu Val Asp Val Leu Glu Asp Lys Leu Lys Gly Glu Met Met
    50   55   60
Asp Leu Gln His Gly Ser Leu Phe Leu Gln Thr Pro Lys Ile Val Ala
65   70   75   80
Asp Lys Asp Tyr Ser Val Thr Ala Asn Ser Lys Ile Val Val Val Thr
                85   90   95
Ala Gly Val Arg Gln Gln Glu Gly Glu Ser Arg Leu Asn Leu Val Gln
            100   105   110
Arg Asn Val Asn Val Phe Lys Phe Ile Ile Pro Gln Ile Val Lys Tyr
        115   120   125
Ser Pro Asp Cys Ile Ile Ile Val Val Ser Asn Pro Val Asp Ile Leu
    130   135   140
Thr Tyr Val Thr
145

<210> 216
<211> 527
<212> PRT
<213> Homo sapien

<400> 216
Gln Arg Ala Pro Gly Ile Glu Glu Lys Ala Ala Glu Asn Gly Ala Leu
1   5   10   15
Gly Ser Pro Glu Arg Glu Glu Lys Val Leu Glu Asn Gly Glu Leu Thr
            20   25   30
Pro Pro Arg Arg Glu Glu Lys Ala Leu Glu Asn Gly Glu Leu Arg Ser
        35   40   45
Pro Glu Ala Gly Glu Lys Val Leu Val Asn Gly Gly Leu Thr Pro Pro
    50   55   60
Lys Ser Glu Asp Lys Val Ser Glu Asn Gly Gly Leu Arg Phe Pro Arg
65   70   75   80
Asn Thr Glu Arg Pro Pro Glu Thr Gly Pro Trp Arg Ala Pro Gly Pro
                85   90   95
Trp Glu Lys Thr Pro Glu Ser Trp Gly Pro Ala Pro Thr Ile Gly Glu
            100   105   110
Pro Ala Pro Glu Thr Ser Leu Glu Arg Ala Pro Ala Pro Ser Ala Val
        115   120   125
Val Ser Ser Arg Asn Gly Gly Glu Thr Ala Pro Gly Pro Leu Gly Pro
    130   135   140
Ala Pro Lys Asn Gly Thr Leu Glu Pro Gly Thr Glu Arg Arg Ala Pro
145   150   155   160
Glu Thr Gly Gly Ala Pro Arg Ala Pro Gly Ala Gly Arg Leu Asp Leu
                165   170   175

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Gly Ser Gly Gly Arg Ala Pro Val Gly Thr Gly Thr Ala Pro Gly Gly
            180                 185                 190
Gly Pro Gly Ser Gly Val Asp Ala Lys Ala Gly Trp Val Asp Asn Thr
        195                 200                 205
Arg Pro Gln Pro Pro Pro Pro Pro Leu Pro Pro Pro Pro Glu Ala Gln
    210                 215                 220
Pro Arg Arg Leu Glu Pro Ala Pro Pro Arg Ala Arg Pro Glu Val Ala
225                 230                 235                 240
Pro Glu Gly Glu Pro Gly Ala Pro Asp Ser Arg Ala Gly Gly Asp Thr
                245                 250                 255
Ala Leu Ser Gly Asp Gly Asp Pro Pro Lys Pro Glu Arg Lys Gly Pro
            260                 265                 270
Glu Met Pro Arg Leu Phe Leu Asp Leu Gly Pro Pro Gln Gly Asn Ser
        275                 280                 285
Glu Gln Ile Lys Ala Arg Leu Ser Arg Leu Ser Leu Ala Leu Pro Pro
    290                 295                 300
Leu Thr Leu Thr Pro Phe Pro Gly Pro Gly Pro Arg Arg Pro Pro Trp
305                 310                 315                 320
Glu Gly Ala Asp Ala Gly Ala Ala Gly Gly Glu Ala Gly Gly Ala Gly
                325                 330                 335
Ala Pro Gly Pro Ala Glu Glu Asp Gly Glu Asp Glu Asp Glu Asp Glu
            340                 345                 350
Glu Glu Asp Glu Glu Ala Ala Ala Pro Gly Ala Ala Ala Gly Pro Arg
        355                 360                 365
Gly Pro Gly Arg Ala Arg Ala Ala Pro Val Pro Val Val Val Ser Ser
    370                 375                 380
Ala Asp Ala Asp Ala Ala Arg Pro Leu Arg Gly Leu Leu Lys Ser Pro
385                 390                 395                 400
Arg Gly Ala Asp Glu Pro Glu Asp Ser Glu Leu Glu Arg Lys Arg Lys
                405                 410                 415
Met Val Ser Phe His Gly Asp Val Thr Val Tyr Leu Phe Asp Gln Glu
            420                 425                 430
Thr Pro Thr Asn Glu Leu Ser Val Gln Ala Pro Pro Glu Gly Asp Thr
        435                 440                 445
Asp Pro Ser Thr Pro Pro Ala Pro Pro Thr Pro Pro His Pro Ala Thr
    450                 455                 460
Pro Gly Asp Gly Phe Pro Ser Asn Asp Ser Gly Phe Gly Gly Ser Phe
465                 470                 475                 480
Glu Trp Ala Glu Asp Phe Pro Leu Leu Pro Pro Pro Gly Pro Pro Leu
                485                 490                 495
Cys Phe Ser Arg Phe Ser Val Ser Pro Ala Leu Glu Thr Pro Gly Pro
            500                 505                 510
Pro Ala Arg Ala Pro Asp Ala Arg Pro Ala Gly Pro Val Glu Asn
        515                 520                 525

      <210> 217
      <211> 466
      <212> DNA
      <213> Homo sapien

      <400> 217
gaatggtgcc tgtcctgctg tctctgctgc tgcttctggg tcctgctgtc ccccaggaga      60
accaagatgg tcgttactct ctgacctata tctacactgg gctgtccaag catgttgaag     120
acgtccccgc gtttcaggcc cttggctcac tcaatgacct ccagttcttt agatacaaca     180
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gtaaagacag gaagtctcag cccatgggac tctggagaca ggtggaagga atggaggatt      240
ggaagcagga cagccaactt cagaaggcca gggaggacat ctttatggag accctgaaag      300
acatcgtgga gtattacaac gacagtaacg ggtctcacgt attgcaggga aggtttggtt      360
gtgagatcga gaataacaga agcagcggag cattctggaa atattactat gatggaaagg      420
actacattga attcaacaaa gaaatcccag cctgggtccc cttcga                     466

      <210> 218
      <211> 381
      <212> DNA
      <213> Homo sapien

      <400> 218
gagtttcctt cgcaagttca tgtggggtac cttcccaggc tgcctggctg accagctggt       60
tttaaagcgc cggggtaacc agttggagat ctgtgccgtg gtcctgaggc agttgtctcc      120
acacaagtac tacttcctcg tgggctacag tgaaactttg ctgtcctact tttacaaatg      180
tcctgtgcga ctccacctcc aaactgtgcc ctcaaaggtt gtgtataagt acctctagaa      240
caatcccctt ttttccatca agctgtagcc tgcagagaat ggaaacgtgg gaaaggaatg      300
gtatgtgggg gaaatgcatc ccctcagagg actgaggcat agtctctcat ctgctattga      360
ataaagacct tctatcttgt a                                                381

      <210> 219
      <211> 1293
      <212> DNA
      <213> Homo sapien

      <400> 219
gaggggaggc gcatggcggg gatggcgctg gcgcgggcct ggaagcagat gtcctggttc       60
tactaccagt acctgctggt cacggcgctc tacatgctgg agccctggga gcggacggtg      120
ttcaattcca tgctggtttc cattgtgggg atggcactat acacaggata cgtcttcatg      180
ccccagcaca tcatggcgat attgcactac tttgaaatcg tacaatgacc aagatgcgac      240
caggatcaga ggttccttgg ggaagaccca ccctacgaag ttggaatgag accatcagat      300
gtgataagaa actcttctag atgtcaacat aaccaacctt ataaagacta aaattcatga      360
gtagaacagg aaaatcatcc tgactcatgt gttgtgttct ttatttttaa ttttcaaaga      420
ggctcttgta tagcagtttt tgtctatttt aacattgtag tcatttgtac tttgatatca      480
gtattttctt aacctttgtg actgtttcaa tattaccccc gtgaaagctt ttcttaatgt      540
aactttgagt acattttaat tgccttctat ttttaaaact caaaatcatt agttgggctt      600
tactgttctt gctattgtat ggcatataca tctgcctgga tatatttcta ctcttgacca      660
aagttttgta aagaacaata taagatttcg ggtaggggta tggggaggga agatatttta      720
ttgagaacta cttaacaaaa gatttatctg taagcttgaa ctcaggagta cagttttagc      780
tatctagact ctaacagctt ttgctttaaa attattaaag tgtttcttaa tgaaaaagaa      840
aagatcttgc taaagttaaa ataaggaaca tttcaccttt taaatattta attcttatgt      900
ggacttattt ccagaaaact ttggtgataa ttcttgagac aaaaggtggt taagtagcat      960
tattatgtaa tgcttatata ccatagagtt tttaatagaa gagaaatcca tttcctccga     1020
gggtcactat taacaatgta cttccttaaa tttagtttaa tgattgtaat gggtgctgca     1080
tttgcacatt gcattaagtt atgatgagac gaattgttgt taaaaattat agcaaaaaga     1140
aatgtaaact tggttaaaat cctttcactc tttgtattgt ttttttaag gtttttattc     1200
cttaaatgta aaatgactac ctaatttttt gatgtaaata cattaaattc aaagagaaaa     1260
aaaatcaaaa aaaaaaaaaa aaaaaaactc gag                                  1293

      <210> 220
      <211> 983
      <212> DNA
      <213> Homo sapien
      <400> 220
caggttattc tgatcctgcc gcctgtcttc cctgtaagag tggagcctcg aggtgtacct      60
taaagtgacc ggaatgttag agatgcaatt tgcagagctg gggcaaggaa gggctccttg     120
tcactgtagt tactttcctt gcagtggcca aatgcccaat aagaaggaat acatgaccac     180
tgctgtgggg agtcagcagg tgcgtgatgc agctggccac actccatcca cggccatgac     240
ataaaacaga caagaagtaa ggctggactg taacacctca aggcctgctc cagtgaccca     300
ctttcttcag agaggctcta ccacacacac aaccaccttc caaatttaca ctcagatcac     360
tacaccatgt ctcccaagtt aaaacatgta tccacctaga ctttaaatgt gctttgtaac     420
tgttgatggc actgtacaga gggccaaagt atttcccatc agatagcatt tttctgaacc     480
catgcctctt gggacgagat cacaggactt gacccatcat caaataggac caggtgacct     540
acagagacat cacaatgatg gcttcctaca gtcaagtcca tttccaataa tgctctcatc     600
taagagaacc catgaacctt atttgaatcc tggttcaaac aaaaacctta aattatttat     660
gagacaatta taaacttgat agattttgat gtgtgaaggt atttatgaat atttttagtc     720
agtgatggta tactgttaag gaaaaggttc atattttagg gacaaaggct gaaacattta     780
tggacagagt gatatgatat ctgggatttg ttttaggatg aagtgggagg gaggaaatga     840
atggaaatag tgttgaaaca gtattggcca cgagtcagct attgtgtgct aagacgctcc     900
tcacaccagt ctactctgta tgtgtttgaa tatctctgta ataaacttaa caaggaaaaa     960
aaaaaaaaaa aaaaaaactc gag                                             983

      <210> 221
      <211> 373
      <212> DNA
      <213> Homo sapien

      <400> 221
cattttatgg gttaattttt tattaaatag caataagata cttttataac tcaataaaat      60
tattcaatga tacattcgga aaataaatgt ataaaatatg aaaaagtact aaaaagcatt     120
tttcagtact tttaggtaag attaatccaa ctaaacacta gcatatgtta tacagtaata     180
ataaggggaa aatacaataa tgttgagaaa gcaaactcaa agcatagatc aatgaaaaaa     240
ttgagaaatg gacataaatg atttagtatt tttaaagaga gtgaaaaatc attattttat     300
gcttttgtgt agcgttagat gaattaaata acatatgcac atatagcttt gcgatacaaa     360
tttccagacc ata                                                        373

      <210> 222
      <211> 544
      <212> DNA
      <213> Homo sapien

      <400> 222
cagagatgct gctgctacaa aggatcggtg taagcagtta acccaggaaa tgatgacaga      60
gaaagaaaga agcaatgtgg ttataacaag gatgaaagat cgaattggaa cattagaaaa     120
ggaacataat gtatttcaaa acaaaataca tgtcagttat caagagactc aacagatgca     180
gatgaagttt cagcaagttc gtgagcagat ggaggcagag atagctcact tgaagcagga     240
aaatggtata ctgagagatg cagtcagcaa cactacaaat caactggaaa gcaagcagtc     300
tgcagaacta aataaactac gccaggatta tgctaggttg gtgaatgagc tgactgagaa     360
aacaggaaag ctacagcaag aggaagtcca aaagaagaat gctgagcaag cagctactca     420
gttgaaggtt caactacaag aagctgagag aaggtgggaa gaagttcaga gctacatcag     480
gaagagaaca gcggaacatg aggcagcaca gctagattta cagagtaaat ttgtggccaa     540
agaa                                                                  544

      <210> 223
      <211> 316
      <212> DNA
      <213> Homo sapien
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<400> 223
gaggcaaggg atatgcttta gtgcctatta tagttaattc ttcaactcca aagtctaaaa 60
cagttgaatc tgctgaagga aaatctgaag aagtaaatga aacattagtt atacccactg 120
aggaagcaga aatggaagaa agtggacgaa gtgcaactcc tgttaactgt gaacagcctg 180
atatcttggt ttcttctaca ccaataaatg aaggacagac tgtgttagac aaggtggctg 240
agcagtgtga acctgctgaa agtcagccag aagcacttct gagaggaaga tgtttgcaag 300
gtaactctaa cagttg 316

<210> 224
<211> 1583
<212> DNA
<213> Homo sapien

<400> 224
cagaccacgt ctgccctcgc cgctctagcc ctgcgcccca gcccggccgc ggcacctccg 60
cctcgccgcc gctaggtcgg ccggctccgc ccggctgccg cctaggatga atatcatgga 120
cttcaacgtg aagaagctgg cggccgacgc aggcaccttc ctcagtcgcg ccgtgcagtt 180
cacagaagaa aagcttggcc aggctgagaa gacagaattg gatgctcact tagagaacct 240
ccttagcaaa gctgaatgta ccaaaatatg gacagaaaaa ataatgaaac aaactgaagt 300
gttattgcag ccaaatccaa atgccaggat agaagaattt gtttatgaga aactggatag 360
aaaagctcca agtcgtataa acaacccaga acttttggga caatatatga ttgatgcagg 420
gactgagttt ggcccaggaa cagcttatgg taatgccctt attaaatgtg gagaaaccca 480
aaaaagaatt ggaacagcag acagagaact gattcaaacg tcagccttaa attttcttac 540
tcctttaaga aactttatag aaggagatta caaaacaatt gctaaagaaa ggaaactatt 600
gcaaaataag agactggatt tggatgctgc aaaaacgaga ctaaaaaagg caaaagctgc 660
agaaactaga aattcatctg aacaggaatt aagaataact caaagtgaat ttgatcgtca 720
agcagagatt accagacttc tgctagaggg aatcagcagt acacatgccc atcaccttcg 780
ctgtctgaat gactttgtag aagcccagat gacttactat gcacagtgtt accagtatat 840
gttggacctc cagaaacaac tgggaagttt tccatccaat tatcttagta acaacaatca 900
gacttctgtg acacctgtac catcagtttt accaaatgcg attggttctt ctgccatggc 960
ttcaacaagt ggcctagtaa tcacctctcc ttccaacctc agtgacctta aggagtgtag 1020
tggcagcaga aaggccaggg ttctctatga ttatgatgca gcaaacagta ctgaattatc 1080
acttctggca gatgaggtga tcactgtgtt cagtgttgtt ggaatggatt cagactggct 1140
aatgggggaa aggggaaacc agaagggcaa ggtgccaatt acctacttag aactgctcaa 1200
ttaagtaggt ggactatgga aaggttgccc atcatgactt tgtatttata tacaattaac 1260
tctaaataaa gcaggttaag tatcttccat gttaatgtgt taagagactg aaaataccag 1320
ccatcagaaa ctggcctttt tgccaataaa gttgcatggt aaatatttca ttacagaatt 1380
tatgttagag ctttcatgcc aagaatgttt tcttacaaaa ttctcttttt attgaggttt 1440
cactaataag cagcttctac ttttgagcct caacttaaag cagaactgtt ttttactgga 1500
tttttcatta acagcaagct ttttttttta tgtaaaataa atctattgtg aattgaaaaa 1560
aaaaaaaaaa aaaaaaactc gag 1583

<210> 225
<211> 491
<212> DNA
<213> Homo sapien

<400> 225
gaacaacatc atcttgaatc actagataga ctcttgacgg aaagcaaagg ggaaatgaaa 60
aaggaaaata tgaagaaaga tgaagcttta aaagcattac agaaccaagt atctgaagaa 120
acaatcaagg ttaggcaact agattcagca ttggaaattt gtaaggaaga acttgtcttg 180
catttgaatc aattggaagg aaataaggaa aagtttgaaa aacagttaaa gaagaaatct 240
gaagaggtat attgtttaca gaaagagcta aagataaaaa atcacagtct tcaagagact 300

tctgagcaaa acgttattct acagcatact cttcagcaac agcagcaaat gttacaacaa 360
gagacaatta gaaatggaga gctagaagat actcaaacta aacttgaaaa acaggtgtca 420
aaactggaac aagaacttca aaaacaaagg gaaagttcag ctgaaaagtt gagaaaaatg 480
gaggagaaat g 491

<210> 226
<211> 483
<212> DNA
<213> Homo sapien

<400> 226
cagccgcacg ccgcggagca ggggctcgga ggtcccggga ttacggtgct cgagcacgct 60
ggtgggaaag gacccgggac ttgaacagtg ttgtgcggcg ccatgcaggt ctccagcctc 120
aatgaggtga agatttacag cctcagctgc ggcaagtccc ttcctgagtg gctttctgat 180
aggaagaaga gagcgctaca gaagaaagat gtagatgtcc gtaggagaat tgaacttatt 240
caggactttg aaatgcctac tgtgtgtacc actattaagg tgtcaaaaga tggacagtac 300
attttagcaa ctggaacata taaacctcgg gttcgatgtt atgacaccta tcaattatcc 360
ttgaagtttg aaaggtgttt agattcagaa gttgtcacct ttgaaatttt gtctgatgac 420
tactcaaaga ttgtcttctt acataatgat agatacattg aatttcattc gcaatcaggt 480
ttt 483

<210> 227
<211> 486
<212> DNA
<213> Homo sapien

<400> 227
gagcctcgct aagctccgac tctgggcggc accgggcgtc ccacgatgcc gaagaacaag 60
aagcggaaca ctccccaccg cggtagcagt gctggcggcg gcgggtcagg agcagccgca 120
gcgacggcgg cgacagcagg tggccagcat cgaaatgttc agccttttag tgatgaagat 180
gcatcaattg aaacagtgag ccattgcagt ggttatagcg atccttccag ttttgctgaa 240
gatggaccag aagtccttga tgaggaagga actcaagaag acctagagta caagttgaag 300
ggattaattg acctaaccct ggataagagt gcgaagacaa ggcaagcagc tcttgaaggt 360
attaaaaatg cactggcttc aaaaatgctg tatgaattta ttctggaaag gagaatgact 420
ttaactgata gcattgaacg ctgcctgaaa aaaggtaaga gtgatgagca acgtgcagct 480
gcagcg 486

<210> 228
<211> 494
<212> DNA
<213> Homo sapien

<400> 228
gaggccagga ctccgggaat gcgagcaggc cccttattct cccagtggcc tcggtctgtc 60
cccacagcgg cccggtcagg gttgcccgag ccccaaggcg gggggcggca ccggggtgct 120
gaaagggaca gaatgctttg acctccaagc tgttttaaat ctagtagata agccagatcc 180
tgtgttgcca taagcccttg gcccacattt aagtgggaat gcagctagct tggatgtctg 240
aaactttgta agcgccttct gtctgaatcc tgaacacagg caccaagact actgaagaag 300
ctcgtcattc ttgtgcaggg atagccacac aagcaaacat gtttgcaaaa cttgaaagaa 360
agaaaattgc agaaagaaga cttgctgttc ttaagaggcc caggaaggtg ctacttagga 420
atcccaccgg cttgtgaagc aagggaatca agtttgcctt caatggggaa cttgacttca 480
ggaaaatgaa cttt 494

<210> 229

```
<211> 465
<212> DNA
<213> Homo sapien

<400> 229
gtcagagagc tggtataacc tcctgttgga catgcagaac cgactcaata aggtcatcaa     60
aagcgtgggc aagattgagc actccttctg gagatccttt cacactgagc gaaagacaga    120
accagccaca ggcttcatcg atggtgatct gattgaaagt ttcctagata tcagccgccc    180
taagatgcag gaggttgtgg caaacttgca gtatgatgat ggcagtggta tgaagcggga    240
ggcaactgca gatgacctca tcaaagtcgt ggaggaacta actcggatcc attagccaag    300
gacaggatct cttttcctga ccctcctaaa ggcgttgccc tcctatcctc ccttccttgc    360
ccacccttgg tttctttggc atgggaaggt tttccttaac cacttgccct agagccacca    420
gtgaccttgt gtggaaacag ggttttttt acttaaaaca gttca                     465

<210> 230
<211> 495
<212> DNA
<213> Homo sapien

<400> 230
caggggaaag ggtgtttggc cttgaccagc cactgctgac ctcaatctca gacctacaga     60
tggtgaatat ctccctgcga gtgttgtctc gacccaatgc tcaggagctt cctagcatgt    120
accagcgcct agggctggac tacgaggaac gagtgttgcc gtccattgtc aacgaggtgc    180
tcaagagtgt ggtggccaag ttcaatgcct cacagctgat cacccagcgg gcccaggtat    240
ccctgttgat ccgccgggag ctgacagaaa gggccaaagg acttcagcct catcctggat    300
gatgtggcca tcacagactt gagctttagc cgagaagtac acaagctgcc tgtaagaaac    360
ccaaccaagt ggggtgaatt ccaaaaaccc gtgggggtga agggcttctt aagaatgcaa    420
ggaaggagga aaagaattcc atgggggggg ggttccttaa cccaggaaca ggggtttccc    480
ttgaattttt ttcca                                                     495

<210> 231
<211> 498
<212> DNA
<213> Homo sapien

<400> 231
ggcagcttct gagaccaggg ttgctccgtc cgtgctccgc ctcgccatga cttcctacag     60
ctatcgccag tcgtcggcca cgtcgtcctt cggaggcctg ggcggcggct ccgtgcgttt    120
tgggccgggg gtcgcttttc gcgcgcccag cattcacggg ggctccggcg gccgcggcgt    180
atccgtgtcc tccgcccgct ttgtgtcctc gtcctcctcg gggggctacg gcggcggcta    240
cggcggcgtc ctgaccgcgt ccgacgggct gctggcgggc aacgagaagc taaccatgca    300
gaacctcaac gaccgcctgc ctcctacctg gacaaagtgc gcgccctgga agcgggcaac    360
ggcgaactta gaggtgaaag aatcccgcga actggtacca aaaacaaggg gcctggggcc    420
ttccgcgact tacagccaac ttactacacc gaacattcaa gaacttgcgg gaacaaaaat    480
ttttggtgcc acccattt                                                  498

<210> 232
<211> 465
<212> DNA
<213> Homo sapien

<400> 232
caggccggcc gagtaggaaa gctggaggcg cgggtgggga acatgtctga gtcggagctc     60
ggcaggaagt gggaccggtg tctggcggat gcggtcgtga agataggtac tggttttgga    120
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ttaggaattg ttttctcact taccttcttt aaaagaagaa tgtggccatt agccttcggt      180
tctggcatgg gattaggaat ggcttattcc aactgtcagc atgatttcca ggctccatat      240
cttctacatg gaaaatatgt caaagagcag gagcagtgac ttcacctgag aacatcccag      300
cgggaggaca agagaaaatc atgtttattc ctcaggaata cttgaagtgc cctggagtaa      360
actgccattc ttctgtaaca atggtatcag taatgcttta aactccagca cctggttatg      420
catttgaaac ccaagtctgg ttcttggttt ggattttctc tctgg                      465

      <210> 233
      <211> 366
      <212> DNA
      <213> Homo sapien

      <220>
      <221> misc_feature
      <222> (1)...(366)
      <223> n = A,T,C or G

      <400> 233
cagtaaaaaa ggttatgttt tattaattgc tggacaaccg tgggaaaaca aataagcaat       60
tgacaccacc aaattcttat tacattcaan ataaaanatt tattcacacc acaaaaagat      120
aatcacaaca aaatatacac taacttaaaa aacaaaagat tatagtgaca taaaatgtta      180
tattctcttt ttaagtgggt aaaagtattt tgtttgcttc tacataaatt tctattcatg      240
ananaataac aaatattaaa atacagtgat agtttgcatt tcttctatag aatgaacata      300
gacataaccc tgaagctttt agtttacagg gagtttccat gaagccacaa actaaactaa      360
ttatca                                                                 366

      <210> 234
      <211> 379
      <212> DNA
      <213> Homo sapien

      <400> 234
gagggcagcc ctcctacctg cgcacgtggt gccgccgctg ctgcctcccg ctcgccctga       60
acccagtgcc tgcagccatg gctcccggcc agctcgcctt atttagtgtc tctgacaaaa      120
ccggccttgt ggaatttgca agaaacctga ccgctcttgg tttgaatctg gtcgcttccg      180
gagggactgc aaaagctctc agggatgctg gtctggcagt cacagatgtc tctgagttga      240
cgggatttct gaaatgttgg ggggacgtgt gaaaactttg catcctgcac gatcccatgc      300
tggaatccta gctcctaata ttcagaagat aatgcttgac atgcgccaca cttgattcaa      360
tcttataaca attgttgcc                                                   379

      <210> 235
      <211> 406
      <212> DNA
      <213> Homo sapien

      <400> 235
caggctgcac catgtacccc accttcagtt taaaagaaaa aaaaaatccc cttcactcct       60
actgggaggt gggacccctt tcattttcag ttttgctcat ctagggaaaa taaggctttg      120
gtttccagtt taattgtttt tgaccttcta aaatgttttt atgttagcac tgatagttgg      180
cattactgtt gttaagcact gtgttccaga ccgtgtctga cttagtgtaa cctaggagat      240
tttatagttt tattttaatg aaaccctgat tgacgcacag cagtggggag aacagcgtct      300
tttacctgtc accgaagcca ggaagccccg tttgtaagcg tgtgttgtgg tgctttattg      360
tacatcctcc agtggcgttc tttttactct aatgttcttt tggttt                     406
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<210> 236
<211> 278
<212> DNA
<213> Homo sapien

<400> 236
gagattagca cctgtgaaca atgcgttctc tgatgacact ctgagcatgg accaacgcct      60
tcttaagcta attctgcaaa atcacatatt gaaagtaaaa gttggcctta gcgacctcta     120
caatggacag atactggaaa ccattggagg caaacaactc cgagtctttg tgtatcggac     180
ggctatctgc atagaaaact catgcatggt gagaggaagc aagcagggaa ggaacggtgc     240
cattcacata ttccgagaga tcatccaacc agcagaat                             278

<210> 237
<211> 322
<212> DNA
<213> Homo sapien

<400> 237
cagggccgtg gcggaggagg agcgctgcac ggtggagcgt cgggccgacc tcacctacgc      60
ggagttcgtg cagcagtacg tgcgcccctg atcgcggagg tcgcgtcctg ttcaccggcc     120
cgtctgcccc gaccgcccaa ggccgccttc ccctgacctc gcgcgcacgc gtggggctgg     180
ggcggcgagg ctggcggtcc ggcctggccg cgactctgcc cttctttcca gaggttccgg     240
gccctgtgct cccgcgacag gttgctggct tcgtttgggg acagagtggt ccggtgagca     300
ccgccaacac ctactcctac ct                                              322


<210> 238
<211> 613
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (399)
<223> n=A,T,C or G

<400> 238
gaattcggca ccagccttct tggatcagga ccagtctcca ccccgtttct acagtggaga 60
tcagcctcct tcttatcttg gtgcaagtgt ggataaactc catcaccctt tagaatttgc 120
agacaaatct cccacacctc ctaatttacc tagcgataaa atctaccctc cttctgggtc 180
ccccgaagag aataccagca cagccaccat gacttacatg acaactactc cagcaacagc 240
ccaaatgagc accaaggaag ccagctggga tgtggctgaa caacccacca ctgctgattt 300
tgctgctgcc acacttcagc gcacgcacag aactaatcgt ccccttcccc ctccgccttc 360
ccagagatct gcagagcagc caccagttgt ggggcaggna caagcagcaa ccaatatagg 420
attaaataat tcccacaagg ttcaaggagt agttccagtt ccagagaggc cacctgaacc 480
tcgagccatg gatgaccctg cgtctgcctt catcagtgac agtggtgctg ctgctgctca 540
gtgtcccatg gctacagctg tccagccagg cctgcctgag aaagtgcggg acggtgcccg 600
ggtcccgctg ctg                                                    613

<210> 239
<211> 613
<212> DNA
<213> Homo sapiens
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<400> 239
gaattcggca ccaggggaca ctggtgctga gctggatgat gatcagcact ggtctgacag 60
cccgtcggat gctgacagag agctgcgttt gccgtgccca gctgaggggg aagcagagct 120
ggagctgagg gtgtcggaag atgaggagaa gctgcccgcc tcaccgaagc accaagagag 180
aggtccctcc caagccacca gccccatccg gtctccccag gaatcagctc ttctgttcat 240
tccagtccac agcccctcaa cagaggggcc ccaactccca cctgtccctg ccgccaccca 300
ggagaaatca cctgaggagc gccttttccc tgagcctttg ctccccaaag agaagcccaa 360
agctgatgcc ccctcggatc tgaaagctgt gcactctccc atccgatcac agccagtgac 420
cctgccagaa gctaggactc ctgtctcacc agggagcccg cagccccagc cacccgtggc 480
ggcctccacg cccccaccca gcgaggtctc cagagccttc tctctcctgt gcaaaatggc 540
aactcttaag gaaaaactca ttgcaccagt tgcggaagaa gaggcaacag ttccaaacaa 600
taagatcact gta 613

<210> 240
<211> 585
<212> DNA
<213> Homo sapiens

<400> 240
gaattcggca cgaggtgaga tctacgatga actttaagat tggaggtgtg acagaacgca 60
tgccaacccc agttattaaa gcttttggca tcttgaagcg agcggccgct gaagtaaacc 120
aggattatgg tcttgatcca aagattgcta atgcaataat gaaggcagca gatgaggtag 180
ctgaaggtaa attaaatgat cattttcctc tcgtggtatg gcagactgga tcaggaactc 240
agacaaatat gaatgtaaat gaagtcatta gcaatagagc aattgaaatg ttaggaggtg 300
aacttggcag caagatacct gtgcatccca acgatcatgt taataaaagc cagagctcaa 360
atgatacttt tcccacagca atgcacattg ctgctgcaat agaagttcat gaagtactgt 420
taccaggact acagaagtta catgatgctc ttgatgcaaa atccaaagag tttgcacaga 480
tcatcaagat tggacgtact catactcagg atgctgttcc acttactctt gggcaggaat 540
ttagtggtta tgttcaacaa gtaaaatatg caatgacaag aataa 585

<210> 241
<211> 566
<212> DNA
<213> Homo sapiens

<400> 241
gaattcggca ccaggcgagc tgcacctcga ggtgaaggcc tcactgatga acgatgactt 60
cgagaagatc aagaactggc agaaggaagc ctttcacaag cagatgatgg gcggcttcaa 120
ggagaccaag gaagctgagg acggctttcg gaaggcacag aagccctggg ccaagaagct 180
gaaagaggta gaagcagcaa agaaagccca ccatgcagcg tgcaaagagg agaagctggc 240
tatctcacga gaagccaaca gcaaggcaga cccatccctc aaccctgaac agctcaagaa 300
attgcaagac aaaatagaaa agtgcaagca agatgttctt aagaccaaag agaagtatga 360
gaagtccctg aaggaactcg accagggcac accccagtac atggagaaca tggagcaggt 420
gtttgagcag tgccagcagt tcgaggagaa acgccttcgc ttcttccggg aggttctgct 480
ggaggttcag aagcacctag acctgtccaa tgtggctggc tacaaagcca tttaccatga 540
cctggagcag agcatcagag cagctg 566

<210> 242
<211> 556
<212> DNA
<213> Homo sapiens

<400> 242
gaattcggca cgagcaaagg tgaagcagga catgcctccg cccgggggct atgggcccat 60

cgactacaaa cggaacttgc cgcgtcgagg actgtcgggc tacagcatgc tggccatagg 120
gattggaacc ctgatctacg ggcactggag cataatgaag tggaaccgtg agcgcaggcg 180
cctacaaatc gaggacttcg aggctcgcat cgcgctgttg ccactgttac aggcagaaac 240
cgaccggagg accttgcaga tgcttcggga gaacctggag gaggaggcca tcatcatgaa 300
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cttcatgtgg tacacgtagg ccctgtgccc tccggccacc tggatccctg cccctcccca 480
ctgggacgga ataaatgctc tgcagacctg gaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 540
aaaaaaaaaa ctcgag 556

<210> 243
<211> 591
<212> DNA
<213> Homo sapiens

<400> 243
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tattaaatgc aaagcagctg tgctttggga gcagaagcaa cccttctcca ttgaggaaat 120
agaagttgcc ccaccaaaga ctaaagaagt tcgcattaag attttggcca caggaatctg 180
tcgcacagat gaccatgtga taaaaggaac aatggtgtcc aagtttccag tgattgtggg 240
acatgaggca actgggattg tagagagcat tggagaagga gtgactacag tgaaaccagg 300
tgacaaagtc atccctctct ttctgccaca atgtagagaa tgcaatgctt gtcgcaaccc 360
agatggcaac ctttgcatta ggagcgatat tactggtcgt ggagtactgg ctgatggcac 420
caccagattt acatgcaagg gcaaaccagt ccaccacttc atgaacacca gtacatttac 480
cgagtacaca gtggtggatg aatcttctgt tgctaagatt gatgatgcag ctcctcctga 540
gaaagtctgt ttaattggct gtgggttttc cactggatat ggcgctgctg t 591

<210> 244
<211> 594
<212> DNA
<213> Homo sapiens

<400> 244
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aatacagatc caagacaaag acaggatggg cactgctgga aaagttatta aatgcaaagc 120
agctgtgctt tgggagcaga agcaaccctt ctccattgag gaaatagaag ttgccccacc 180
aaagactaaa gaagttcgca ttaagatttt ggccacagga atctgtcgca cagatgacca 240
tgtgataaaa ggaacaatgg tgtccaagtt tccagtgatt gtgggacatg aggcaactgg 300
gattgtagag agcattggag aaggagtgac tacagtgaaa ccaggtgaca aagtcatccc 360
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cattaggagc gatattactg gtcgtggagt actggctgat ggcaccacca gatttacatg 480
caagggcaaa ccagtccacc acttcatgaa caccagtaca tttaccgagt acacagtggt 540
ggatgaatct tctgttgcta agattgatga tgcagctcct cctgagaaag tctg 594

<210> 245
<211> 615
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (105)
<223> n=A,T,C or G

<400> 245
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cctggagact gcagttctct atccttccac agctctttca ccatnctgga tcacttcctt 120
tgaatgcaga agcttgctgg ccaaaagatg tgggaattgt tgcccttgag atctattttc 180
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atttgatgca gctgtttgaa gagtctggga atacagatat agaaggaatc gacacaacta 480
atgcatgcta tggaggcaca gctgctgtct tcaatgcttg ttaactggat tgagtccagc 540
tcttgggatg gacggtatgc cctggtaagt tgcaggagat attgctgtat atgccacagg 600
aaatgctaga cctac 615

<210> 246
<211> 546
<212> DNA
<213> Homo sapiens

<400> 246
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cggccagctc gccttattta gtgtctctgc aaaaccggcc ttgtgaattt gcaagaaacc 120
tgaccgctct tggtttgaat ctggtcgctt ccggagggac tgcaaaagct ctcagggatg 180
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tggtgtgtga accagaggac tatgtgggtg ggtgtccacg gagatgcaga gctccgagag 540
taagga 546

<210> 247
<211> 564
<212> DNA
<213> Homo sapiens

<400> 247
gaattcggca ccagagatca cgtgcagtga gatgcagcaa aaagttgaac ttctgagata 60
tgaatctgaa aagcttcaac aggaaaattc tattttgaga aatgaaatta ctactttaaa 120
tgaagaagat agcatttcta acctgaaatt agggacatta aatggatctc aggaagaaat 180
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acaagagaag tttaatctga aagaagaact ggaacgttgt aaagtgcagt cctccacttt 480
agtgtcttct ctggaggcgg agctctctga agttaaaata cagacccata ttgtgcaaca 540
ggaaaaccac cttctcaaag atga 564

<210> 248
<211> 434
<212> DNA
<213> Homo sapiens

<400> 248
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gactggtaag accatcaccc tcgaggttga gcccagtgac accatcgaga atgtcaaggc 120
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caaggaaggc attcctcctg accagcagag gttgatcttt gccggaaagc cagcctggga 420
agatggggcc gcca 434

<210> 249
<211> 416
<212> DNA
<213> Homo sapiens

<400> 249
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cggacaggac ccgcacagca agcacctgta cacggccgac atgttcacgc acgggatcca 120
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ccccacctta aagcttttca agccaggcca agaagctgtg aagtaccagg gtcctcggga 360
cttccagaca ctggaaaact ggatgctgca gacactgaac gaggagccag tgacac 416

<210> 250
<211> 504
<212> DNA
<213> Homo sapiens

<400> 250
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attgtgatcc gtcccaggca gtggattagg aggccagaag gagatccctt ccacggtgct 120
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agctgatgaa gagggtgcag cagagctctg ggcctgcatg aggtccctgt cagtatacac 420
cctggggtgt accccacccc ttcccacttt aataaacgtg ctccctgttg ggtgtcatct 480
gtgaagactg ccaggcctag ctct 504

<210> 251
<211> 607
<212> DNA
<213> Homo sapiens

<400> 251
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caatgatgtg gaaaagatgg ccgcacacat gcggatggtt cacattgatg aagagatggg 180
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607
tctgcat

<210> 252
<211> 618
<212> DNA
<213> Homo sapiens

<400> 252
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agccaattta caagaacaaa ggaagaatta gaagctgaga aaagagactt aattagaacc 480
aatgagagac tatctcaaga acttgaatac ttaacagagg atgttaaacg tctgaatgaa 540
aaacttaaag aaagcaatac aacaaagggt gaacttcagt taaaattgga tgaacttcaa 600
gcttctgatg tttctgtt 618

<210> 253
<211> 1201
<212> DNA
<213> Homo sapiens

<400> 253
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gacagcaaac gaatggagca acttgttcga gaaaaaaccc atttgcttca gaaattgaaa 840
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tcaagcaatg aacagaatac ctgcttaatc agcaaactgc atagagctga ccgagaaatc 1080
agcacactgg ccagtgaagt gaaagagctt aaacatgcaa acaaactaga aataactgac 1140
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a 1201

<210> 254
<211> 560
<212> DNA
<213> Homo sapiens

<400> 254

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accaaaggcc gtgggaaaac ccctctccag ctccagggga ttggtcagga ccacccacta 180
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ttttgatggg aaattgccat gaccacaggg gtttggagtt ctgctttttt tttttcttct 300
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ttctatcctg gatgtggttc ttctgtgtag caattccttg atgtccagtt tggaaagatg 540
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<210> 255
<211> 612
<212> DNA
<213> Homo sapiens

<400> 255
gaattcggca ccaggcgggg cagcagggcc gcggccatgg ggagcttgaa ggaggagctg 60
ctcaaagcca tctggcacgc cttcaccgac tcgaccagga ccacagggca aggtctccaa 120
gtcccagctc aaggtccttt cccataacct gtgcacggtg ctgaaggttc ctcatgaccc 180
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catgccttat ttaaacaggt tcattttgga aaaggtccaa gacaactttg acaagattga 300
attcaatagg atgtgttgga ccctctgtgt caaaaaaaaa cctcacaaag aatcccctgc 360
tcattacaga agaagatgca tttaaaatat gggttatttt caacttttta tctgaggaca 420
agtatccatt aattattgtg tcagaagaga ttgaatacct gcttaagaag cttacagaag 480
ctatgggagg aggttggcag caagaacaat ttgaacatta taaaatcaac tttgatgaca 540
gtaaaaatgg cctttctgca tgggaactta ttgagcttat tggaaatgga cagtttagca 600
aaggcatgga cc                                                     612

<210> 256
<211> 1132
<212> DNA
<213> Homo sapiens

<400> 256
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ccaaggcccc gccgtccagc ttctaagtgc cagatgatgg aggagcgtgc caacctgatg 120
cacatgatga aactcagcat caaggtgttg ctccagtcgg ctctgagcct gggccgcagc 180
ctggatgcgg accatgcccc cttgcagcag ttctttgtag tgatggagca ctgcctcaaa 240
catgggctga aagttaagaa gagttttatt ggccaaaata aatcattctt tggtcctttg 300
gagctggtgg agaaactttg tccagaagca tcagatatag cgactagtgt cagaaatctt 360
ccagaattaa agacagctgt gggaagaggc cgagcgtggc tttatcttgc actcatgcaa 420
aagaaactgg cagattatct gaaagtgctt atagacaata aacatctctt aagcgagttc 480
tatgagcctg aggctttaat gatggaggaa gaagggatgg tgattgttgg tctgctggtg 540
ggactcaatg ttctcgatgc caatctctgc ttgaaaggag aagacttgga ttctcaggtt 600
ggagtaatag atttttccct ctaccttaag gatgtgcagg atcttgatgg tggcaaggag 660
catgaaagaa ttactgatgt ccttgatcaa aaaaattatg tggaagaact taaccggcac 720
ttgagctgca cagttgggga tcttcaaacc aagatagatg gcttggaaaa gactaactca 780
aagcttcaag aagagctttc agctgcaaca gaccgaattt gctcacttca agaagaacag 840
cagcagttaa gagaacaaaa tgaattaatt cgagaaagaa gtgaaaagag tgtagagata 900
acaaaacagg ataccaaagt tgagctggag acttacaagc aaactcggca aggtctggat 960
gaaatgtaca gtgatgtgtg gaagcagcta aaagaggaga agaaagtccg gttggaactg 1020
gaaaaagaac tggagttaca aattggaatg aaaaccgaaa tggaaattgc aatgaagtta 1080
ctggaaaagg acacccacga gaagcaggac acactagttg ccctccgcca gc         1132
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<210> 257
<211> 519
<212> DNA
<213> Homo sapiens

<400> 257
gaattcgtga cacgaggtgc tcgagatgaa ccccagcgcc cccagctacc ccatggcctc 60
tctgtacgtg ggggacctgc accccgacgt gaccgaggcg atgctctacg agaagttcag 120
cccggccggg cccatcctct ccatccgggt ctgcagggac atgatcaccc gccgctcctt 180
gggctacgcg tacgtgaact tccagcagcc ggcggacgcg gaacgtgctt tggacaccat 240
gaattttgat gttataaagg gcaagccagt acgcatcatg tggtctcagc gtgatccatc 300
acttcgcaaa agtggagtag gcaacatatt cattaaaaat ttggacaaat ccatcgacaa 360
taaagcacta tatgatacgt tttctgcgtt tggtaacatc ctttcatgta aggtggtttg 420
tgatgaaaat ggctccaagg gctatggatt tgtacacttt gaaacacagg aagcagctga 480
aagagctatt gaaaaaatga atgggatgct tctaaatga 519

<210> 258
<211> 596
<212> DNA
<213> Homo sapiens

<400> 258
gctttgccaa agacttagaa gctaagcaga aaatgagctt aacatcctgg tttttggtga 60
gcagtggagg cactcgccac aggctgccac gagaaatgat ttttgttgga agagatgact 120
gtgagctcat gttgcagtct cgtagtgtgg ataagcaaca cgctgtcatc aactatgatg 180
cgtctacgga tgagcattta gtgaaggatt tgggcagcct caatgggact tttgtgaatg 240
atgtaaggat tccggaacag acttatatca ccttgaaact tgaagataag ctgagatttg 300
gatatgatac aaatcttttc actgtagtac aaggagaaat gagggtccct gaagaagctc 360
ttaagcatga gaagtttacc attcagcttc agttgtccca aaaatcttca gaatcagaat 420
tatccaaatc tgcaagtgcc aaaagcatag attcaaaggt agcagacgct gctactgaag 480
tgcagcacaa aactactgaa gcactgaaat ccgaggaaaa agccatggat atttctgcta 540
tgccccgtgg tactccatta tatgggcagc cgtcatggtg gggggatgat gaggtg 596

<210> 259
<211> 595
<212> DNA
<213> Homo sapiens

<400> 259
gaattcggca ccagagaaaa agcttcaagg tatattgagt cagagtcaag ataaatcact 60
tcggagaatt tcagaattaa gagaggagct gcaaatggac cagcaagcaa agaaacatct 120
tcaggacgag tttgatgcat gtttggagga gaaagatcag tatatcagtg ttctccagac 180
tcaggtttct cttctaaagc agcgattaca gaatggccca atgaatgttg atgctcccaa 240
acccctccct cccggggagc tccaggcaga agtgcacggt gacacggaga agatggaggg 300
cgtcggggaa ccagtgggag gtgggacttc cgctaaaacc ctggaaatgc tccagcaaag 360
agtgaaacgt caggagaatc tgcttcagcg ctgtaaggag acaattgggt cccacaagga 420
gcagtgcgca ctgctgctga gtgagaagga ggcactgcag gagcagttgg atgaaaggct 480
gcaggagctg gaaaagatga aggggatggt aataaccgag acgaagcggc aaatgcttga 540
gaccctggaa ctgaaagaag atgaaattgc tcagcttcgt agtcatatca aacag 595

<210> 260
<211> 994
<212> DNA

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<213> Homo sapiens

<400> 260
gaattcggca cgaggcgttg cctgccttct tgctgtctat cagcctttct tgcctcttcc 60
ttttcgcctt ccctgttctt ccctttctca aacaaacaag acatggcaaa ccgcagtcta 120
acccagccct ttgaaattat ccatagtttt acagacagct ccaggccatg agccacaatg 180
tccaaaatta ttcttgagca ctgatataaa ttacttagac cttctttgag ggcagaactc 240
agctgttgct ctcatgatgg gcagtgctgg aaagggttct ggtatgtctt caaaatgagt 300
ccacgagttt actgagtgct tacaggtaaa ggaatgaata taagatgtct ttctgatcag 360
aacaggtgtc ccttcacatg agctttacta gactctggga gggaaaagta gccaagtact 420
tctgaaccat tttttaatac ttgttttgtc atggtgaaat tatagcagtt atcccaaaat 480
gttttaatta tcaaaatact gtcttttaaa aaaaaaaaaa agtaacacct tttaaagcat 540
tagatttcac ttgggtttct tttccaaaaa atgctaggta gacaaggcat tgtaaacatg 600
agtttccttt aagaaccatc agaatataaa tttaacatga agaaaactgc tatatctagt 660
agaaataata tctaaagttt aacaactaaa gtaccctcac agaatagcaa ataccettct 720
gttctggaca tgggttcaaa tttgaatatg gaaataattt ccttggaagt ccctagaggc 780
aggtcagagg aagtatgcat taagagggaa aggagagaat ggaaataaaa gtcactataa 840
tgcagattta tgccttattt tttagcattt tttaaatgtt gggtctttca aggtgttttt 900
tgctttttat tagatctata taaataagtt aactagcaat ttagttttgt atttaagcta 960
cacttaatct ttttctttgg tgatatttat ttct                             994

<210> 261
<211> 594
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (538)
<223> n=A,T,C or G

<400> 261
gaattcggca ccagtggaga tccagctgaa ccatgccaac cgccaggctg cggaggcaat 60
caggaacctt cggaacaccc agggaatgct gaaggacaca cagctgcacc tggacgatgc 120
tctcagaggc caggacgacc tgaaagagca gctggccatg gttgagcgca gagccaacct 180
gatgcaggct gagatcgagg agctcagggc atccctggaa cagacagaga ggagcaggag 240
agtggccgag caagagctac tggatgccag tgagcgcgtg cagctcctcc acacccagaa 300
caccagcctc atcaacacca agaagaagct ggagacagac atttcccaaa tccagggaga 360
gatggaagac atcgtccagg aagcccgcaa cgcagaagag aaggccaaga aagccatcac 420
tgatgccgcc atgatggcgg aggagctgaa gaaggagcag gacaccagcg cccacctgga 480
gcggatgaag aagaacatgg agcagaccgt gaaggacctg cagcaccgtc tggacgangc 540
tgagcagctt ggcgctgaag ggcgggcaag aagcagatcc agaaactgga ggct       594

<210> 262
<211> 594
<212> DNA
<213> Homo sapiens

<400> 262
gaaaaggtgg ctggagccaa aggcatagtc agggttaatg ctccttttc tttatcccaa 60
atcagatagt gtttaggctt tttcatcaaa tataaaaacc cagcccagtt catggctcat 120
tcggcagcaa ccctgagacg ctttacagct ctagacccta aaaggtcaaa aggccgtctt 180
atgctcaata tacattttat tacccaatct gccccggaca ttaaataaaa ctccaaaaat 240
taaatccggc cctcaaaccc cacaacagga cttaattgac ctcaccttca aggtgtagaa 300
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taataaaaaa aaaaagttgc aattccttgc ctccgctgtg agacaaaccc cagccacatc 360
tccagcacac aagaacttcc aaacgcctga accacagcag ccaggcgttc ctccagaacc 420
tcctccccca ggagcttgct acatgtgccg gaaatctggc cactaggcca aggaatgcct 480
gcagccccgg attcctccta agccgtgtcc catctgtgcg ggaccccact gaaaatcgga 540
ctgttcaact cacctggcag ccactctcag agaccctgga actctggccc aagg       594

<210> 263
<211> 506
<212> DNA
<213> Homo sapiens

<400> 263
gaattcggca cgagcggaaa cttaggggcc acgtgagcca cggccacggc cgcataggca 60
agcaccggaa gcaccccggc ggccgcggta atgctggtgg tctgcatcac caccggatca 120
acttcgacaa ataccaccca ggctactttg ggaaagttgg tatgaagcat taccacttaa 180
agaggaacca gagcttctgc ccaactgtca accttgacaa attgtggact ttggtcagtg 240
aacagacacg ggtgaatgct gctaaaaaca agactggggc tgctcccatc attgatgtgg 300
tgcgatcggg ctactataaa gttctgggaa agggaaagct cccaaagcag cctgtcatcg 360
tgaaggccaa attcttcagc agaagagctg aggagaagat taagagtgtt gggggggcct 420
gtgtcctggt ggcttgaagc cacatggagg gagtttcatt aaatgctaac tactttttaa 480
aaaaaaaaaa aaaaaaaaaa ctcgag                                      506

<210> 264
<211> 600
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (32)
<223> n=A,T,C or G

<400> 264
ggctcgtgaa cacacactga cagctatagg gnaggcggcg gcaccgtccc cgcttcccct 60
cggcggcggg gtgtcccgtc ggcggccctg aagtgaccca taaacatgtc ttgtgagagg 120
aaaggcctct cggagctgcg atcggagctc tacttcctca tcgcccggtt cctggaagat 180
ggaccctgtc agcaggcggc tcaggtgctg atccgcgagg tggccgagaa ggagctgctg 240
ccccggcgca ccgactggac cgggaaggag catcccagga cctaccagaa tctggtgaag 300
tattacagac acttagcacc tgatcacttg ctgcaaatat gtcatcgact aggacctctt 360
cttgaacaag aaattcctca aagtgttcct ggagtacaaa ctttattagg agctggaaga 420
cagtctttac tacgcacaaa taaaagctgc aagcatgttg tgtggaaagg atctgctctg 480
gctgcgttgc actgtggaag accacctgag tcaccagtta actatggtag cccacccagc 540
attgcggata ctctgttttc aaggaagctg aatgggaaat acagacttga gcgacttgtt 600

<210> 265
<211> 534
<212> DNA
<213> Homo sapiens

<400> 265
gaattcggca cgagtgagga gcccatcatg gcgacgcccc ctaagcggcg ggcggtggag 60
gccacggggg agaaagtgct gcgctacgag accttcatca gtgacgtgct gcagcgggac 120
ttgcgaaagg tgctggacca tcgagacaag gtatatgagc agctggccaa ataccttcaa 180
ctgagaaatg tcattgagcg actccaggaa gctaagcact cggagttata tatgcaggtg 240
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gatttgggct gtaacttctt cgttgacaca gtggtcccag atacttcacg catctatgtg 300
gccctgggat atggtttttt cctggagttg acactggcag aagctctcaa gttcattgat 360
cgtaagagct ctctcctcac agagctcagc aacagcctca ccaaggactc catgaatatc 420
aaagcccata tccacatgtt gctagagggg cttagagaac tacaaggcct gcagaatttc 480
ccagagaagc ctcaccattg acttcttccc cccatcctca gacattaaag agcc 534

<210> 266
<211> 552
<212> DNA
<213> Homo sapiens

<400> 266
gaattcggca ccagggcacc tccgcctcgc cgccgctagg tcggccggct ccgcccggct 60
gccgcctagg atgaatatca tggacttcaa cgtgaagaag ctggcggccg acgcaggcac 120
cttcctcagt cgcgccgtgc agttcacaga agaaaagctt ggccaggctg agaagacaga 180
attggatgct cacttagaga acctccttag caaagctgaa tgtaccaaaa tatggacaga 240
aaaaataatg aaacaaactg aagtgttatt gcagccaaat ccaaatgcca ggatagaaga 300
atttgtttat gagaaactgg atagaaaagc tccaagtcgt ataaacaacc cagaactttt 360
gggacaatat atgattgatg cagggactga gtttggccca ggaacagctt atggtaatgc 420
ccttattaaa tgtggagaaa cccaaaaaag aattggaaca gcagacagag aactgattca 480
aacgtcagcc ttaaattttc ttactccttt aagaaacttt atagaaggag attacaaaac 540
aattgctaaa ga 552

<210> 267
<211> 551
<212> DNA
<213> Homo sapiens

<400> 267
gaagcctacc agccaggtgc cggccccccc acccccggcc cagccccctc ctgcagcggt 60
ggaagcggct cggcagatcg agcgtgaggc ccagcagcag cagcacctgt accgggtgaa 120
catcaacaac agcatgcccc caggacgcac gggcatgggg accccgggga gccagatggc 180
ccccgtgagc ctgaatgtgc cccgacccaa ccaggtgagc gggcccgtca tgcccagcat 240
gcctcccggg cagtggcagc aggcgcccct tccccagcag cagcccatgc caggcttgcc 300
caggcctgtg atatccatgc aggcccaggc ggccgtggct gggccccgga tgcccagcgt 360
gcagccaccc aggagcatct cacccagcgc tctgcaagac ctgctgcgga ccctgaagtc 420
gcccagctcc cctcagcagc aacagcaggt gctgaacatt ctcaaatcaa acccgcagct 480
aatggcagct ttcatcaaac agcgcacagc caagtacgtg gccaatcagc ccggcatgca 540
gccccagcct g 551

<210> 268
<211> 573
<212> DNA
<213> Homo sapiens

<400> 268
gaattcggca ccagggttcc ttgtgggcta gaagaatcct gcaaaaatgt ctctctatcc 60
atctctcgaa gacttgaagg tagacaaagt aattcaggct caaactgctt tttctgcaaa 120
ccctgccaat ccagcaattt tgtcagaagc ttctgctcct atccctcacg atggaaatct 180
ctatcccaga ctgtatccag agctctctca atacatgggg ctgagtttaa atgaagaaga 240
aatacgtgca aatgtggccg tggtttctgg tgcaccactt caggggcagt tggtagcaag 300
accttccagt ataaactata tggtggctcc tgtaactggt aatgatgttg gaattcgtag 360
agcagaaatt aagcaaggga ttcgtgaagt cattttgtgt aaggatcaag atggaaaaat 420
tggactcagg cttaaatcaa tagataatgg tatatttgtt cagctagtcc aggctaattc 480

tccagcctca ttggttggtc tgagatttgg ggaccaagta cttcagatca atggtgaaaa 540
ctgtgcagga tggagctctg ataaagcgca caa 573

<210> 269
<211> 500
<212> DNA
<213> Homo sapiens

<400> 269
gaatcggcac caggaaacct ttattagcag agatagctgg cttggatcag attacgggga 60
atgtggggga gccatgaaga aactaactaa aggggagcct ttggggacca gggggagaca 120
agtcactatt ttgagggaga aagctctgga ttgattctga caggacactt gagtgtgaac 180
tgtccaagct aagcctctgg gtgtgtagag agagccctta cagatagata gcacctttgc 240
tttcagagtg gaaggactag ccactaagga ccagaccaag atgcatgtag gtcactgaca 300
agcacctgat gaagaggagg ggtctcctcc aagtttgtgt ttggaactcc tcctgtgttc 360
aatttcctaa aagccataat ccagcaagct gaactcatga gaaggtctgc ttcatgttga 420
gcatggaaga cagaacacag acggaaactg cagtgatggt gtgaagacac cacggatagg 480
ttaggggcag tgaggaggaa 500

<210> 270
<211> 224
<212> DNA
<213> Homo sapiens

<400> 270
gaattcggca cgagaagact acaatctcca gggaaacctg gggcgtctcg cgcaaacgtc 60
cataactgaa agtagctaag gcaccccagc cggaggaagt gagctctcct ggggcgtggt 120
tgttcgtgat ccttgcatct gttacttagg gtcaaggctt gggtcttgcc ccgcagaccc 180
ttgggacgac ccggccccag cgcagctatg aacctggagc gagt 224

<210> 271
<211> 447
<212> DNA
<213> Homo sapiens

<400> 271
gaattcggca cgaggctggg ccgggcccga gcggatcgcg ggctcgggct gcggggctcc 60
ggctgcgggc gctgggccgc gaggcgcgga gcttgggagc ggagcccagg ccgtgccgcg 120
cggcgccatg aagggcaagg aggagaagga gggcggcgca cggctgggcg ctggcggcgg 180
aagccccgag aagagcccga gcgcgcagga gctcaaggag cagggcaatc gtctgttcgt 240
gggccgaaag tacccggagg cggcggcctg ctacggccgc gcgatcaccc ggaacccgct 300
ggtggccgtg tattacacca accgggcctt gtgctacctg aagatgcagc agcacgagca 360
ggccctggcc gactgccggc gcgccctgga gctggacggg cagtctgtga aggcgcactt 420
cttcctgggg cagtgccagc tggagat 447

<210> 272
<211> 606
<212> DNA
<213> Homo sapiens

<400> 272
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gaggttattg atttgcttaa acctgaccaa gtagaaggga tccagaaatc tgggactaaa 120
aaactgaaga ccgaaactga caaagaaaat gctgaagtga agtttaaaga ttttcttctg 180

tccttgaaga ctatgatgtt ttctgaagat gaggctcttt gtgttgtaga cttgctaaag 240
gagaagtctg gtgtaataca agatgcttta aagaagtcaa gtaagggaga attgactacg 300
cttatacatc agcttcaaga aaaggacaag ttactcgctg ctgtgaagga agatgctgct 360
gctacaaagg atcggtgtaa gcagttaacc caggaaatga tgacagagaa agaaagaagc 420
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caagttcgtg agcagatgga ggcagagata gctcacttga agcaggaaaa tgggtatact 600
ggagaa 606

<210> 273
<211> 598
<212> DNA
<213> Homo sapiens

<400> 273
gaattcggca ccaggcccgg tcccgcggtc gcagctccag ccgcctcctc cgcgcagccg 60
ccgcctcagc tgctcgctct gtgggtcggt cctctccggc acttgggctc cagtcgcgcc 120
ctccaagccc ttcaggccgc cccagtgtcc tcctccttct ccggccagac ccagccccgc 180
gaagatggtg gaccgcgagc aactggtgca gaaagcccgg ctggccgagc aggcggagcg 240
ctacgacgac atggccgcgg ccatgaagaa cgtgacagag ctgaatgagc cactgtcgaa 300
tgaggaacga aaccttctgt ctgtggccta caagaacgtt gtgggggcac gccgctcttc 360
ctggagggtc atcagtagca ttgagcagaa gacatctgca gacggcaatg agaagaagat 420
tgagatggtc cgtgcgtacc gggagaagat agagaaggag ttggaggctg tgtgccagga 480
tgtgctgagc ctgctggata actacctgat caagaattgc agcgagaccc agtacgagag 540
caaagtgttc tacctgaaga tgaaagggga ctactaccgc tacctggctg aagtggcc 598

<210> 274
<211> 536
<212> DNA
<213> Homo sapiens

<400> 274
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aaagacagaa aatgtcttcg tagatgaacc ccttattcat gcaactactt atattccttt 120
gatggataat gctgactcaa gtcctgtggt agataagaga gaggttattg atttgcttaa 180
acctgaccaa gtagaaggga tccagaaatc tgggactaaa aaactgaaga ccgaaactga 240
caaagaaaat gctgaagtga agtttaaaga ttttcttctg tccttgaaga ctatgatgtt 300
ttctgaagat gaggctcttt gtgttgtaga cttgctaaag gagaagtctg gtgtaataca 360
agatgcttta aagaagtcaa gtaagggaga attgactacg cttatacatc agcttcaaga 420
aaaggacaag ttactcgctg ctgtgaagga agatgctgct gctacaaagg atcggtgtaa 480
gcagttaacc caggaaatga tgacagagaa agaaagaagc aatgtggtta taacaa 536

<210> 275
<211> 494
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (379)
<223> n=A,T,C or G

<400> 275
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gcagatcttc gtgaagactc tgactggtaa gaccatcacc ctcgaggttg agcccagtga 120
caccatcgag aatgtcaagg caaagatcca agataaggaa ggcatccctc ctgaccagca 180
gaggctgatc tttgctggaa aacagctgga agatgggcgc accctgtctg actacaacat 240
ccagaaagag tccaccctgc acctggtgct ccgtctcaga ggtgggatgc aaatcttcgt 300
gaagacactc actggcaaga ccatcaccct tgaggtggag cccagtgaca ccatcgagaa 360
cgtcaaagca aagatccang acaaggaagg cattcctcct gaccagcaga ggttgatctt 420
tgccggaaag cagctggaag atgggcgcac cctgtctgac tacaacatcc agaaagagtc 480
taccctgcac ctgg                                                   494

<210> 276
<211> 484
<212> DNA
<213> Homo sapiens

<400> 276
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agacaaaagg cagtcacagg tgtgcaggga gtgtgggcga ggctttagca ggaagtcaca 120
gctcatcata caccagagga cacacacagg agaaaagcct tatgtctgcg gagagtgtgg 180
gcgaggcttt atagttgagt cagtcctccg caaccacctg agtacacact ccggggagaa 240
accttatgtg tgcagccatt gtgggcgagg ctttagctgc aagccatacc tcatcagaca 300
tcagaggaca cacacaaggg agaaatcgtt tatgtgcaca gtgtgtgggc gaggctttcg 360
tgaaaagtca gagctcatta agcaccagag aattcacacg gggataagc cttatgtgtg 420
cagagattga ggccgaggct ttgtaaagga gatcatgtct caacacacac cagaggatta 480
catt                                                              484

<210> 277
<211> 513
<212> DNA
<213> Homo sapiens

<400> 277
gcttgaggct gccaatcaga gcttggcaga gctgagagat cagcggcagg gggagcgcct 60
ggaacatgca gcagctttgc gggccctaca agatcaggta tccatccaga gtgcagatgc 120
acaggaacaa gtggaagggc ttttggctga gaacaatgcc ttgaggacta gcctggctgc 180
cctggagcag atccaaacag caaagaccca agaactgaat atgctccggg aacagaccac 240
tgggctggca gctgagttgc agcagcagca ggctgagtac gaggacctta tgggacagaa 300
agatgacctc aactcccagc tccaggagtc attacgggcc aatagtcgac tgctggaaca 360
acttcaagaa atagggcagg agaaggagca gttgacccag gaattacagg aggctcggaa 420
gagtgcggag aagcggaagg ccatgcttgg atgagctagc aatggaaacg ctgcaagaga 480
agtcccacac aaggaagagc ttgggagcag ttc                              513

<210> 278
<211> 471
<212> DNA
<213> Homo sapiens

<400> 278
gaattcggca ccagccaagg ccctgtccct ggctcgggcc cttgaagagg ccttggaagc 60
caaagaggaa ctcgagcgga ccaacaaaat gctcaaagcc gaaatggaag acctggtcag 120
ctccaaggat gacgtgggca agaacgtcca tgagctggag aagtccaagc gggccctgga 180
gacccagatg gaggagatga agacgcagct ggaagagctg gaggacgagc tgcaagccac 240
ggaggacgcc aaactgcggc tggaagtcaa catgcaggcg ctcaagggcc agttcgaaag 300
ggatctccaa gcccgggacg agcagaatga ggagaagagg aggcaactgc agagacagct 360
tcacgagtat gagacggaac tggaagacga gcgaaagcaa cgtgccctgg cagctgcagc 420
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aaagaagaag ctggaagggg acctgaaaga cctggagctt caggccgact t          471

<210> 279
<211> 497
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (457)
<223> n=A,T,C or G
<221> misc_feature
<222> (471)
<223> n=A,T,C or G

<400> 279
gaattcggca cgaggccaca gaggcggcgg agagatggcc ttcagcggtt cccaggctcc 60
ctacctgagt ccagctgtcc ccttttctgg gactattcaa ggaggtctcc aggacggact 120
tcagatcact gtcaatggga ccgttctcag ctccagtgga accaggtttg ctgtgaactt 180
tcagactggc ttcagtggaa atgacattgc cttccacttc aaccctcggt ttgaagatgg 240
agggtacgtg gtgtgcaaca cgaggcagaa cggaagctgg gggcccgagg agaggaagac 300
acacatgcct ttccagaagg ggatgccctt tgacctctgc ttcctggtgc agagctcaga 360
tttcaaggtg atggtgaacg ggatcctctt cgtgcagtac ttccaccgcg tgcccttcca 420
ccgtgtggac accatctccg tcaatggctc tgtgcanctg tcctacatca ncttccagac 480
ccagacagtc atccaca                                                497

<210> 280
<211> 544
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (451)
<223> n=A,T,C or G

<400> 280
gaattcggca ccagaatagg aacagctccg gtctacagct cccagcgtga gcgacgcaga 60
agacgggtga tttctgcatt tccatctgag gtaccgggtt catctcacta gggagtgcca 120
gacagtgggc gcaggccagt gtgtgtgcgc accgtgcgcg agccgaagca gggcgaggca 180
ttgcctcacc tgggaagcac aaggggtcag ggagttccct ttccgagtca aagaaagggg 240
tgacggacgc acctggaaaa tcgggtcact cccacccgaa tattgtgctt ttcagaccgg 300
cttaagaaac ggcgcaccac gagactatat cccacacctg gctcagaggg tcctacgccc 360
acggaatctc gctgattgct agcacagcag tcttagatca aactgcaagg ggggcaacga 420
ggctgggggа ggggcgcccg ccattgccca ngcttgctta ggtaaacaaa gcagccggga 480
agcttgaact gggtggagcc caccacagct caaggaggcc tgcctgcctc tgtagctcca 540
cctc                                                              544

<210> 281
<211> 527
<212> DNA
<213> Homo sapiens

<220>
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<221> misc_feature
<222> (456)
<223> n=A,T,C or G

<400> 281
gaattcggca cgaggcctcg ctcagctcca acatggcaaa aatctccagc cctacagaga 60
ctgagcggtg catcgagtcc ctgattgctg tcttccagaa gtatgctgga aaggatggtt 120
ataactacac tctctccaag acagagttcc taagcttcat gaatacagaa ctagctgcct 180
tcacaaagaa ccagaaggac cctggtgtcc ttgaccgcat gatgaagaaa ctggacacca 240
acagtgatgg tcagctagat ttctcagaat ttcttaatct gattggtggc ctagctatgg 300
cttgccatga ctccttcctc aaggctgtcc cttcccagaa gcggacctga ggacccettg 360
gccctggcct tcaaacccac ccccttteet tccagccttt ctgtcatcat ctccacagcc 420
cacccatccc ctgagcacac taaccacctc atgcanggcc cccctgccaa tagtaataaa 480
gcaatgtcct tttttaaaac atgaaaaaaa aaaaaaaaaa actcgag 527

<210> 282
<211> 514
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (494)
<223> n=A,T,C or G

<400> 282
ggaagactgg agcctttgcg gcggcgctgc ccctcccctg gtccccgcga gctcggaggg 60
cccggctggt gctgcggggg ccccgggagg ttgaaaacta agcatgggga agagctgcaa 120
ggtggtcgtg tgtggccagg cgtctgtggg caaaacttca atcctggagc agcttctgta 180
tgggaaccat gtagtgggtt cggagatgat cgagacgcag gaggacatct acgtgggctc 240
cattgagaca gaccgggggg tgcgagagca ggtgcgtttc tatgacaccc gggggctccg 300
agatggggcc gaactgcccc gacactgctt ctcttgcact gatggctacg tcctggtcta 360
tagcacagat agcagagagt cttttcagcg tgtggagctg ctcaagaagg agattgacaa 420
atccaaggac aagaaggagg tcaccatcgt ggtccttggc aacaagtgtg acttacagga 480
gcagcggcgt gtanacccaa atgtggctca acac 514

<210> 283
<211> 484
<212> DNA
<213> Homo sapiens

<400> 283
gggcgggcgg tggacagtca tggcggcccg gcgcggggct ctcatagtgc tggagggcgt 60
ggaccgcgcc gggaagagca cgcagagccg caagctggtg gaagcgctgt gcgccgcggg 120
ccaccgcgcc gaactgctcc ggttcccgga aagatcaact gaaatcggca aacttctgag 180
ttcctacttg caaaagaaaa gtgacgtgga ggatcactcg gtgcacctgc ttttttctgc 240
aaatcgctgg gaacaagtgc cgttaattaa ggaaaagttg agccagggcg tgaccctcgt 300
cgtggacaga tacgcatttt ctggtgtggc cttcaccggt gccaaggaga atttttccct 360
agactggtgt aaacagccag acgtgggcct tcccaaaccc gacctggtcc tgttcctcca 420
gttacagctg gcggatgctg ccaagcgggg agcgtttggc catgagcgct atgagaacgg 480
ggct 484

<210> 284
<211> 514

<212> DNA
<213> Homo sapiens

<400> 284
gaattcggca cgaggcggag gccgcggagg ctcctcggtc cttcagcacc cctcggcccg 60
acgcacccac gcccctcacc ccccgagagc cgaaaatgga cccaagtggg gtcaaagtgc 120
tggaaacagc agaggacatc caggagaggc ggcagcaggt cctagaccga taccaccgct 180
tcaaggaact ctcaaccctt aggcgtcaga agctggaaga ttcctatcga ttccagttct 240
ttcaaagaga tgctgaagag ctggagaaat ggatacagga aaaacttcag attgcatctg 300
atgagaatta taaagaccca accaacttgc agggaaagct tcagaagcat caagcatttg 360
aagctgaagt gcaggccaac tcaggagcca ttgttaagct ggatgaaact ggaaacctga 420
tgatctcaga agggcatttt gcatctgaaa ccatacggac ccgtttgatg gagctgcacc 480
gccagtggga attacttttg gagaagatgc gaga 514

<210> 285
<211> 383
<212> DNA
<213> Homo sapiens

<400> 285
gaattcggca cgaggccggg ctccaccgcg catcctgctc cactctggcg accgcccccg 60
gggcccccgc cgcgggcgcg gcgcccgcca tgggcgagga ggactactat ctggagctgt 120
gcgagcggcc ggtgcagttc gagaaggcga accctgtcaa ctgcgtcttc ttcgatgagg 180
ccaacaagca ggtttttgct gttcgatctg gtggagctac tggcgtggta gttaaaggcc 240
cagatgatag gaatcccatc tcatttagaa tggatgacaa aggagaagtg aagtgcatta 300
agttttcctt agaaaataag atattggctg ttcagaggac ctcaaagact gtggattttt 360
gtaattttat ccctgataat tcc 383

<210> 286
<211> 943
<212> DNA
<213> Homo sapiens

<400> 286
gaattcggca ccagggccgt ggcggaggag gagcgctgca cggtggagcg tcgggccgac 60
ctcacctacg cggagttcgt gcagcagtac gtgcgcccct gatcgcggag gtcgcgtcct 120
gttcaccggc ccgtctgccc cgaccgccca aggccgcctt cccctgacct cgcgcgcacg 180
cgtggggctg gggcggcgag gctggcggtc cggcctggcc gcgactctgc ccttctttcc 240
agaggttccg ggccctgtgc tcccgcgaca ggttgctggc ttcgtttggg gacagagtgg 300
tccggctgag caccgccaac acctactcct accacaaagt ggacttgccc ttccaggagt 360
atgtggagca gctgctgcac ccccaggacc ccacctccct gggcaatggt gaggcagccc 420
taggcggcgg taggggggtgg ggacgcttgg agtctccagg tgccaggatc cctgtccccg 480
ccgtctctgt tggcagacac cctgtacttc ttcggggaca acaacttcac cgagtgggcc 540
tctctctttc ggcactactc cccaccccca tttggcctgc tgggaaccgc tccagcttac 600
agctttggaa tcgcaggagc tggctcgggg gtgcccttcc actggcatgg acccgggtac 660
tcagaagtga tctacggtcg taagcgctgg ttcctttacc cacctgagaa gacgccagag 720
ttccacccca acaagaccac actggcctgg ctccgggaca catacccagc cctgccaccg 780
tctgcacggc ccctggagtg taccatccgg gctggtgagg tgctgtactt ccccgaccgc 840
tggtggcatg ctacgctcaa ccttgacacc agcgtcttca tctccacctt cctcggctag 900
ccaaaacagc tggcaggact gccggtcaca caccagcacg tcc 943

<210> 287
<211> 1143
<212> DNA

<213> Homo sapiens

<400> 287
gaattcggca cgagggaaga acagctgttg gaacaacaag aatatttaga aaaagaaatg 60
gaggaagcaa agaaaatgat atcaggacta caggccttac tgctcaatgg atccttacct 120
gaagatgaac aggagaggcc cttggccctc tgtgaaccag gtgtcaatcc cgaggaacaa 180
ctgattataa tccaaagtcg tctggatcag agtatggagg agaatcagga cttaaagaag 240
gaactgctga aatgtaaaca agaagccaga aacttacagg ggataaagga tgccttgcag 300
cagagattga ctcagcagga cacatctgtt cttcagctca aacaagagct actgagggca 360
aatatggaca aagatgagct gcacaaccag aatgtggatc tgcagaggaa gctagatgag 420
aggaaccggc tcttgggaga atataaaaaa gagctggggc agaaggatcg ccttcttcag 480
cagcaccagg ccaagttaga agaagcactc cggaaactct ctgatgtcag ttaccaccag 540
gtggatctag agcgagagct agaacacaaa gatgtcctct tggctcactg tatgaaaaga 600
gaggcagatg aggcgaccaa ctacaacagt cacaactctc aaagcaatgg ttttctcctt 660
ccaacggcag gaaaaggagc tacttcagtc agcaacagag ggaccagcga cctgcagctt 720
gttcgagatg ctctccgcag cctgcgcaac agcttcagtg gccacgatcc tcagcaccac 780
actattgaca gcttggagca gggcatttct agcctcatgg agcgcctgca tgttatggag 840
acgcagaaga aacaagaaag aaaggttcgg gtcaagtcac ccagaactca agtaggtagt 900
gaataccggg agtcctggcc ccctaactca aagttgcctc actcacagag ctctccaact 960
gtcagcagca cctgtactaa agtgctctat ttcactgacc ggtcacttac gcccttcatg 1020
gtcaatatac caaagaggtt ggaggaggtg acgttaaagg attttaaagc agctattgat 1080
cgggaaggaa atcaccggta tcacttcaaa gcactggatc ctgagtttgg cactgtcaaa 1140
gag 1143

<210> 288
<211> 881
<212> DNA
<213> Homo sapiens

<400> 288
gtgagagcgg gccgaggaga ttggcgacgg tgtcgcccgt gttttcgttg gcgggtgcct 60
gggctggtgg gaacagccgc ccgaaggaag caccatgatt tcggccgcgc agttgttgga 120
tgagttaatg ggccgggacc gaaacctagc ccggacgag aagcgcagca acgtgcggtg 180
ggaccacgag agcgtttgta aatattatct ctgtggtttt tgtcctgcgg aattgttcac 240
aaatacacgt tctgatcttg gtccgtgtga aaaaattcat gatgaaaatc tacgaaaaca 300
gtatgagaag agctctcgtt tcatgaaagt tggctatgag agagattttt tgcgatactt 360
acagagctta cttgcagaag tagaacgtag gatcagacga ggccatgctc gtttggcatt 420
atctcaaaac cagcagtctt ctggggccgc tggcccaaca ggcaaaaatg aagaaaaaat 480
tcaggttcta acagacaaaa ttgatgtact tctgcaacag attgaagaat tagggtctga 540
aggaaaagta gaagaagccc aggggatgat gaaattagtt gagcaattaa aagaagagag 600
agaactgcta aggtccacaa cgtcgacaat tgaaagcttt gctgcacaag aaaaacaaat 660
ggaagtttgt gaagtatgtg gagccttttt aatagtagga gatgcccagt cccgggtaga 720
tgaccatttg atgggaaaac aacacatggg ctatgccaaa attaaagcta ctgtagaaga 780
attaaaagaa aagttaagga aaagaaccga agaacctgat cgtgatgagc gtctaaaaaa 840
ggagaagcaa gaaagagaaa aaaaaaaaaa aaaaactcga g 881

<210> 289
<211> 987
<212> DNA
<213> Homo sapiens

<400> 289
gaattcggca cgagggactg tggtttccag gaatggtggc gtctcacgct tcttgtgctt 60
tttcctttgg ggcctccgag cggctggggt tgggggactg ggcaggaggc tccctgtaaa 120

catttggact tgggctgggg caggggctgg tgttgggcaa agctgggggt ccaggctgga 180
gaagcagggg cccctccaga cgcagccttg ggagactcag catgtgcccc cctcccctca 240
tcacagaaca agacaatggt taaaaaccag aacagatgcc cagaaggggg taccatggcc 300
attaccagca tctcagacaa gggcaggctt caaacaggga ggcctgtggc aacccctccc 360
ctacgtctgg agctgagggg acagggggag ctgagaacaa agagaggaaa gaggagaaaa 420
gcggcggggg aacaggcggg gagcgtgatc ttcttgcccc catcttcctc aggggttggg 480
gggtacaaag tcggcggtgg cccatcccgc caggccccgc tgcccctcag aagaggccgc 540
agtccttcag gttgttcttg atgatgacat cggtgacggc gtcaaacacg aactgcacgt 600
tcttggtgtc ggtggcgcac gtgaagtgcg tgtagatctc cttggtgtct ttgcgcttat 660
tcaggtcctc aaacttactc tggatgtagc tggctgcctc atcatatttg ttggcccctg 720
tatactcagg gaagcagatg gtcaggggac tgtgtgtgat cttctcctca aacaggtcct 780
tcttgttgag gaagaggatg atggacgtgt ctgtgaacca cttgttgttg cagatgctat 840
cgaatagctt catgctctca tgcatgcggt tcatctcctc gtcctcagct agcaccaagt 900
cataggcgct caaggctacg cagaagatga tggctgtgac gccctcaaag cagtggatcc 960
acttcttccg ctcagaccgc tgaccac 987

<210> 290
<211> 300
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(300)
<223> n = A,T,C or G

<400> 290
gattcaagat gtaccccatt gactttgaga aggatgatga cagcaacttt catatggatt 60
tcatcgtggc tgcatccaac ctccgggcag aaaactatga cattccttct gcagaccggc 120
acaagagcaa gctgattgca gggaagatca tcccagccat tgccacgacc acagcagccg 180
tggttggcct tgtgtgtctg gagctgtaca aggttgtgca ggggcaccga canctgact 240
cctacangaa tgggtgcctc aacttgagcc ctgcctttct ttggtttctc tgaacccctt 300

<210> 291
<211> 352
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(352)
<223> n = A,T,C or G

<400> 291
aaccaagctg ccaccggggg tggatcggat gcggcttgag aggcatctgt ctgccgagga 60
cttctcaagg gtatttgcca tgtcccctga agagtttggc aagctggctc tgtggaagcg 120
gaatgagctc aagaagaagg cctctctctt ctgatggccc ccacctgctc cgggacggcc 180
cccttacccc tgctgcttca gggtttttcc ccggcgggtt gggaggggca ggaggtgggg 240
tggaaatngg gtgggcncct ttcctcaggt agagnggggg gccaaaacct ctgcngtccc 300
cggagngagc tatggacttt cttccccctc acaaggntgg gggcctcctg ct 352

<210> 292
<211> 511

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<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(511)
<223> n = A,T,C or G

<400> 292
cgcggtggct gcgcactcng cctgagaaac tcggcaagcg cgcagtgtcg actccccggt      60
ctatgccagg cgcatctcag ctaatccaaa agtaaatgag aaacttagaa aaagattgcc     120
aattccaaat caacatattt agagaaaatt ggaaaaggag aagcttacta cagctttatt     180
tgaggacttt ttaaagaacg ctgggttcta tctgtgagct gcaaatcttg gagcaaaaac     240
cagagacatt gccagagcaa acaagaacag aaatacaaat ggagaactgg tcaaaagaca     300
taacccacag ttatcttgaa caagaaacta cggggataaa taaaagtacg canccagatg     360
agcaactgac tatgaattct gagaaaagta tgcatcggaa atccactgaa ttagntaatg     420
aaataacatg ngagaacaca gaatggccag gggcagagat caacgaattt tcanatcatc     480
agttcttatc cagatgatga gtctgtttac t                                    511

<210> 293
<211> 526
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(526)
<223> n = A,T,C or G

<400> 293
gataaaaaga actttaatgg aaggcactgt tgtccaaaat cacataaagg gtaagagccc      60
acacggtacc accctgctct cctacttctc aaacccacat ccaccaccca gacaggaggg     120
tgcanacccc acaggaaatt acctcccgga gcactgactg atatttttcc ttaaaacaaa     180
aaaatggctg tctcagacta ataacagaac atcttaagag ctataccagc tattacagcc     240
tggtaatana agcagctttc taanaattcc caagtttata anaggcccaa naaatgcatt     300
tattctgttg tctattaagc ctccatgaca aggagaaagt tatgagtaaa tccttggttc     360
atcaggagtt aagagctgtg ngcctcatga ggagttaana gctgtgtgca taagcaggtt     420
caagaaacaa actcctgttt gtttgcctct ttgatggttc aaaaacattc agctgctttc     480
acctctanga caaaatgctt aaagaattta ctctcatcac cttggg                    526

<210> 294
<211> 601
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(601)
<223> n = A,T,C or G

<400> 294
actttaaaag ccaaatatat ttttaaaaga tcatgcttat aataagtaaa ttacncatta      60
aggaaacatc aaaataaagt agatgaataa aaaggcacac tcgaaaaatt tgagcgcaga     120
aaggacagtt ctttttgttt tgtttctaat gtcggaagaa aaagaaagag atatattaaa     180
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atcattgttt tcaagtgaag gtttctgtca gttgaagtag ttagcaatgg cttcttttct 240
cccgtgtcca aagcaggctc ttcctgcgct gacttctgag gaggngttca gtcctctgcc 300
atgtataggc gatacatcaa ggcgacggcc actgcagaga tggcagggat cacccagttg 360
gtccaccaac tggaactaga atcaatagta gtgataagag tttccggagg cttgtttaac 420
tttggtctgt catctggatg gagctcccca atgatgaatg ttttggacat ttccctggca 480
tctgtagant gcccgacatc ctcaaagttc tcagtagcng tcacctccac ttgttccctt 540
aaaacttctt ccccaccagg atgctcttcc agaaatttgg gncaaatcgn acaccttgtg 600
g 601

<210> 295
<211> 262
<212> DNA
<213> Homo sapien

<400> 295
cccttagccc caagggccct gggggcagcc accctcccgc ctgtcggccc gtagatttat 60
caagggtgtt atgggcccag ctttgggggg ccagtcccga tgcactttga ggggtgttgg 120
agaggggact cccccactcg cacttaactc aacggctctc gggccctggg gctgttttta 180
ccatgtttgt ttttgaagct caggtgtctc acgtctgggc tgcaccaggc gaagagagaa 240
attaaagatt tgaggttttt cc 262

<210> 296
<211> 598
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(598)
<223> n = A,T,C or G

<400> 296
gttagaacaa ctcagcaaaa taaaattcct gtttattgtt ggacaacatt gtttcacaca 60
tacatcaaac aggccaaaaa aaataaacag caacttcata gacaaaaaag gaaaaaaaaa 120
gaaacctttt atctttggcc tttttaacca tctcatacaa accaactact tatagtacag 180
ctaagtacat acacaaaaaa gttactggaa tgctcggaat aagattgttt ttctgttgtc 240
atttttgctt tttttacaag gntttttttc tcctttgaga ttataatgaa catggncaca 300
ccacaagtaa agtcagaagt aggacagana acgctccgaa ggctggtttg gtcatccgan 360
atcattaaaa atggctgacc ctaacaatat gtacaaaaat ataaaatgta aataaaaaat 420
acaaacaaat ttccttttta aagtactttt aagaaaaaaa gcagggcctt ggaagttttg 480
gttctttttt cctcccctgt tgcaaattct catggtttgg gttgggtggn gganancccg 540
tgtcatctgc gggtggcact gccccggngg gcgggcgggc ctctctctcg aangngac 598

<210> 297
<211> 509
<212> DNA
<213> Homo sapien

<400> 297
agaacacagg tgtcgtgaaa actaccccta aaagccaaaa tgggaaagga aaagactcat 60
atcaacattg tcgtcattgg acacgtagat tcgggcaagt ccaccactac tggccatctg 120
atctataaat gcggtggcat cgacaaaaga accattgaaa aatttgagaa ggaggctgct 180
gagatgggaa agggctcctt caagtatgcc tgggtcttgg ataaactgaa agctgagcgt 240
gaacgtggta tcaccattga tatctccttg tggaaatttg agaccagcaa gtactatgtg 300

actatcattg atgccccagg acacagagac tttatcaaaa acatgattac agggacatct 360
caggctgact gtgctgtcct gattgttgct gctggtgttg gtgaatttga agctggtatc 420
tccaagaatg ggcaggaccc gagagcatgc ccttctggct tacacactgg gtgtgaaaca 480
actaattgtc ggtgttaaca aaatggatt 509

<210> 298
<211> 267
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(267)
<223> n = A,T,C or G

<400> 298
gggacggggg aaaggagacg cttcttcctc ttgctgctct tctcgttccc gagatcagcg 60
gcggcggtga ccgcgagtgg gtcggcaccg tctccggctc cgggngcnaa caatgctgac 120
tgatagcgga ggcggnggca cctccttnna ggaggacctg gactctgtgg ctccgcgatc 180
cgccccagct ggggcctcgg agccgcctcc gccgggaggg gtcggtctgg ggatccncac 240
cgngaggctn tttggggagg gcgggcc 267

<210> 299
<211> 121
<212> DNA
<213> Homo sapien

<400> 299
ggcacgaggg ccctcggagc tcgtttccag atcgaggtaa gaggacttt cttaaaggcc 60
tagtctatgg gatggggcgg cggagggaat tttttgagaa ataaaatgaa gctgcagtgt 120
a 121

<210> 300
<211> 533
<212> DNA
<213> Homo sapien

<400> 300
aaggtgcaca gtatttgatg caggctgctg gtcttggtcg tatgaagcca aacacacttg 60
tccttggatt taagaaagat tggttgcaag cagatatgag ggatgtggat atgtatataa 120
acttatttca tgatgctttt gacatacaat atggagtagt ggttattcgc ctaaaagaag 180
gtctggatat atctcatctt caaggacaag aagaattatt gtcatcacaa gagaaatctc 240
ctggcaccaa ggatgtggta gtaagtgtgg aatatagtaa aaagtccgat ttagatactt 300
ccaaaccact cagtgaaaaa ccaattacac acaaagttga ggaagaggat ggcaagactg 360
caactcaacc actgttgaaa aaagaatcca aaggccctat tgtgccttta aatgtagctg 420
accaaaagct tcttgaagct agtacacagt ttcagaaaaa acaaggaaag aatactattg 480
atgtctggtg gctttttgat gatggaggtt tgaccttatt gataccttac ctt 533

<210> 301
<211> 560
<212> DNA
<213> Homo sapien

<220>

<221> misc_feature
<222> (1)...(560)
<223> n = A,T,C or G

<400> 301
ataaatgatc ccttttattg taagtaatgc gcaacactgg cctggctttg cactgcaagc 60
cctcggtcaa gatatagtca aataactatg gctgcaggtt ccacagttcc acaataacca 120
tggctgcacg atccacaatt cagacacaga catagagctg gggtgggtgg aaggggcagg 180
agggtggcag agtgcggact gtccccagcc ctggcctctc catgcanagt tggcccaggc 240
agacacaccc catggaatga tgagaaagtg acggcacggc cccttcccac agcaagcctg 300
gggctgccag gaactgccct tcanaacctt tgggcccagg tcnccctgaa nccccacaac 360
tttttatctg gaataagtat taaaaaacaa taaattaagc aaacaacntg gnccttgaag 420
gatgttgacc nacatggtcc acagtttttg gcncaaaaaa ataagggctg gtttgctttt 480
tttggaaggc agggtttgtg gnttggcttt caaatnattt tcaaaccatt ccccagggag 540
gganaacccc cgggggggaa 560

<210> 302
<211> 599
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(599)
<223> n = A,T,C or G

<400> 302
gcaaagttac aaatttattg gtctggaaat aaatacaaat atctcattaa naaactcctc 60
tggaaagact tgtgcacaat agtttcccat ccgtactcag cctctcttgc cccgatcccc 120
gacttttcta ctcaaggcca gggaaggcct ccaaggngat gggcggcagg taacgagtca 180
ttgcctctca cgccacctgg aaggctggac tacttcctcc tcccaactgc ggggtcccan 240
aaatcctcgg gtcccagngg ctgacttaca atattcaatt cactctgacc aaacttccta 300
tganaaaatc cacggngagc caaaatgaaa agtacaaggc agtagtacag gaacctggca 360
gccgcactgg ccgcccanaa acgtcagtgg ngctgcccca ttcggcgaaa ggttagggag 420
caggaaaaga ggaagcagga gagggaagga aagtcccatg gaatatgtat tccanaatcc 480
ttacattttc tcagccaccg ctccccacgt gagttcccac ccccaccccg acaagaagca 540
aagagttctg aggatccaag aacgtgaccg ggtcanacan gttcagctac tgagttcac 599

<210> 303
<211> 591
<212> DNA
<213> Homo sapien

<400> 303
cggagttgta acgctccact gactgataga gcgaccggcc gaccatggcg cccggagtgg 60
cccgcgggcc gacgccgtac tggaggttgc gcctcggtgg cgccgcgctg ctcctgctgc 120
tcatcccggt ggccgccgcg caggagcctc ccggagctgc ttgttctcag aacacaaaca 180
aaacctgtga agagtgcctg aagaacgtct cctgtctttg gtgcaacact aacaaggctt 240
gtctggacta cccagttaca agcgtcttgc caccggcttc cctttgtaaa ttgagctctg 300
cacgctgggg agtttgttgg gtgaactttg aggcgctgat catcaccatg tcggtagtcg 360
ggggaaccct cctcctgggc attgccatct gctgctgctg ctgctgcagg aggaagagga 420
gccggaagcc ggacaggagt gaggagaagg ccatgcgtga gcgggaggag aggcggatac 480
ggcaggagga acggagagca gagatgaaga caagacatga tgaaatcaga aaaaaatatg 540
gcctgtttaa agaagaaaac ccgtatgcta gatttgaaaa caactaaagc g 591

```
<210> 304
<211> 441
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(441)
<223> n = A,T,C or G

<400> 304
gctggacgga gacctgctgg aggaggagga gctggaggaa gcagaggagg aggaccggtc      60
gtcgctgctg ctgctgtcgc cgcccgcggc caccgcctct cagacccagc agatcccagg     120
cgggtccctg gggtctgtgc tgctgccagc cgccaggttc gatgcccggg aggcggcggc     180
ggcggcgggg gtgctgtacg gaggggacga tgcccagggc atgatggcgg cgatgctgtc     240
ccacgcctac ggccccggcg gttgtggggc ggcggcggcc gccctgaacg gggagcaggc     300
ggccctgctc cggagaaaga gcgtcaacac caccgagtgc gtcccggtgc ccagctccga     360
gcacgtcgcc gagatcgtcg gccgccaggg ttgtaaaatt aaagcactga nagccaagac     420
aaacacgtat atcaagactc c                                               441

<210> 305
<211> 491
<212> DNA
<213> Homo sapien

<400> 305
tcgccatgcc cccttcttag cactgcaccg ccaggtccat gctgctgcca ccccagacct      60
gggctttgcc tgccacctct gtgggcagag cttccgaggc tgggtggccc tggttctgca     120
tctgcgggcc cattcagctg caaagcggcc catcgcttgt cccaaatgcg agagacgctt     180
ctggcgacga aagcagcttc gagctcatct gcggcggtgc caccctcccg ccccggaggc     240
ccggcccttc atatgcggca actgtggccg gagctttgcc cagtgggacc agctagttgc     300
ccacaagcgg gtgcacgtag ctgaggccct ggaggaggcc gcagccaagg ctctggggcc     360
ccggcccagg ggccgccccg cggtgaccgc cccccggccc ggtggagatg ccgtcgaccg     420
ccccttccag tgtgcctgtt gtggcaagcg cttccggcac aagcccaact tgatcgctca     480
cccgcgcgtg c                                                          491

<210> 306
<211> 547
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(547)
<223> n = A,T,C or G

<400> 306
tctctttctt ttaagacagg aatgtaagcc acaacattta caaatacaat gttttaactc      60
tctacatgta ggaagccaac ctgctccttt ttgatcttct tctttggcac aacctcagtg     120
gatttctctg attcagaacg agttctaatt gatcttctct gttgcttctt ttctactgag     180
cctgtagaac cagatgttgc ttcaggagat gatacactct gcgttggctt ttcatttctc     240
tggtttggtg tagaaattat aagcctgtct tgccccctga cacttatttc tgttttgtta     300
ccaattccct ttgttgaata aacaaattga tcgataaatt tcccatcccc tgtagcattc     360
```

```
tgaagagcaa acacttgttc aattttcaca actggagaca tgttacactt ctgcaaatcc    420
aggctccctt tgtgcatccg taatggaagc tggtaaggat ttccttgctg ccgcagtttt    480
ccaggctatt ttaacaggcg gnggctcttc ctctttccgc acttgtgtgc cgcctctggc    540
tatgtct                                                              547

      <210> 307
      <211> 571
      <212> DNA
      <213> Homo sapien

      <220>
      <221> misc_feature
      <222> (1)...(571)
      <223> n = A,T,C or G

      <400> 307
cgctgcatgt gataatgtca tcatttattt ttaaatggtt ctaaattgca natttaagtt     60
gatttcaaat caaccctatt tttaaattac ttttaatagg aanaaatgaa gcaaggacat    120
acataatcta ctatatttga aggactcaaa caaatacatg tttggctgtg aattctgtac    180
tctcaccaaa acagagataa aaatccacct aaaatacact ttccttcatt tagtgcttgt    240
ggganaaggt caagtattgc actttaaaat tactttcatc taacatttgc cccaactttc    300
cccctgaatt cactatatgt tttcagcaaa catgatttta taaattttaa gtataaaagc    360
aactaggttt tctaattcaa ctttggaagg tttactttac tctacanagc tatttttgta    420
aaacggcata tttacttaca aaattganag atagggggcat ccagctgagg tacatttcct    480
ccccttggcgt tgagtttctg gacttgggtc gggggcacag gcttgtgtga ctgccccgtg    540
gcccgataca tggcctggac cccaggatgc g                                   571

      <210> 308
      <211> 591
      <212> DNA
      <213> Homo sapien

      <220>
      <221> misc_feature
      <222> (1)...(591)
      <223> n = A,T,C or G

      <400> 308
ctccttatgt gtctgcctac ttcattcttc ggcatttcct gcttatccaa gttcaccatt     60
tcaggtcacc actggatatc agttgcctgt atataattat caggcatttc ctgcttatcc    120
aagttcacca tttcaggtca ccactggata tcagttgcct gtatataatt atcaggcatt    180
tcctgcttat ccaagttcac catttcaggt caccactgga tatcagttgc ctgtatataa    240
ttatcaggca tttcctgctt atccaagttc accatttcag gtcaccactg gatatcagtt    300
gcctgtatat aattatcagg catttcctgc ttatccaagt tcaccatttc aggtcaccac    360
tggatatcag ttgcctgtat ataattatca ggcatttcct gcttatccaa gttcaccatt    420
tcaggtcacc actggatatc agttgcctgt atataattat caggcatttc ctgcttatcc    480
aaattcagca gttcaggtca ccactggata tcagttccat gtatacaatt accagatgcc    540
accgcagtgc cctgttgggg gagcaaagga gaaatntgtg gaccgaagca t             591

      <210> 309
      <211> 591
      <212> DNA
      <213> Homo sapien
```

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<400> 309
aggggggtgca cgtactccca actgtggtcg cgctctcacc ccttctgctg ctctcgtggc      60
cccctcgcga tggcgggcat cctgtttgag gatattttcg atgtgaagga tattgacccg     120
gagggcaaga agtttgaccg aggtaagtaa gtgtctcgac tgcattgtga gagtgaatct     180
ttcaagatgg atctaatctt agatgtaaac attcaaattt accctgtaga cttgggtgac     240
aagtttcggt tggtcatagc tagtaccttg tatgaagatg gtaccctgga tgatggtgaa     300
tacaacccca ctgatgatag gccttccagg gctgaccagt ttgagtatgt aatgtatgga     360
aaagtgtaca ggattgaggg agatgaaact tctactgaag cagcaacacg cctgctgaga     420
ttgagagctg ctgagtggca gtgctccaga atcacgggat ggggccttct gtttcagctc     480
tgcgtacgtg tcctatgggg gcctgctcat gaggctgcag ggggatgcca acaacctgca     540
tggattcgag gtggactcca gagtttatct cctgatgaag aagctagcct t              591

<210> 310
<211> 488
<212> DNA
<213> Homo sapien

<400> 310
tggtctcaag cctgaagagg ctccgcccac aagctggccc atgaagttag caatgcctgt      60
ggcttcagtc aattgtcttg agactgtgaa gaggctgaaa gacaccttcc cgggtggaag     120
aaggagttca ctgaaaactt atcttaaact gacccttccc tttgagtgag tcttcattcc     180
tctcccatgt gggaacccag cctccgatgc cccggggact aggggaaaca gttggaggtc     240
cgtgccgtcc ccagcctgcc acgggtgcga ggacagccaa gtcctgagtg actcaagatg     300
cttcacttac atggaagaaa cttctaaaac tctaccgagt ggtttttgta tatactaaag     360
ttctatttag agcttttctg ttttgggcaa gttcgctgct ccttctattt gggcactttg     420
gtttttgtac tgtcttttgt gacggcattg attgaacatt ttttactagt agtcttatga     480
cttttgta                                                              488

<210> 311
<211> 511
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(511)
<223> n = A,T,C or G

<400> 311
cccgtttntg nagcaaaana gggggaagat ttataggtag aggcgacaaa cctaccgagc      60
ctggtgatag ctggttgtcc aagatagaat cttagttcaa ctttaaattt gcccacagaa     120
ccctctaaat ccccttgtaa atttaactgt tagtccaaag aggaacagct ctttggacac     180
taggaaaaaa ccttgtagag agagtaaaaa atttaacacc catagtaggc ctaaaagcag     240
ccaccaatta agaaagcgtt caagctcaac acccactacc taaaaaatcc caaacatata     300
actgaactcc tcacacccaa ttggaccaat ctatcaccct atagaagaac taatgttagt     360
ataagtaaca tgaaaacatt ctcctccgca taagcctgcg tcagattaaa acactgaact     420
gacaattaac agcccaatat ctacaatcaa ccaacaagtc attattaccc tcactgtcaa     480
cccaacacag gcatgctcat aaggaaaggt t                                    511

<210> 312
<211> 591
<212> DNA
<213> Homo sapien
```

```
      <400> 312
gaacttgcgt tgaaggaagc agaaactgat gaaataaaaa ttttgctgga agaaagcaga     60
gcccagcaga aggagacctt gaaatctctt cttgaacaag agacagaaaa tttgagaaca    120
gaaattagta aactcaacca aaagattcag gataataatg aaaattatca ggtgggctta    180
gcagagctaa gaactttaat gacaattgaa aaagatcagt gtatttccga gttaattagt    240
agacatgaag aagaatctaa tatacttaaa gctgaattaa acaaagtaac atctttgcat    300
aaccaagcat ttgaaataga aaaaaaccta aaagaacaaa taattgaact gcagagtaaa    360
ttggattcag aattgagtgc tcttgaaaga caaaaagatg aaaaaattac ccaacaagaa    420
gagaaatacg aagctattat ccagaacctt gagaaagaca gacaaaaatt ggtcagcagc    480
caggagcaag acagagaaca gttaattcag aagcttaatt gtgaaaaaga tgaagctatt    540
cagactgccc taaaagaatt taaattggag agagaagttg ttgagaaaga g             591

      <210> 313
      <211> 373
      <212> DNA
      <213> Homo sapien

      <220>
      <221> misc_feature
      <222> (1)...(373)
      <223> n = A,T,C or G

      <400> 313
ttgattttta ttctgnattt tattactgaa atangttgtc ctantnatcc caccccacaa     60
taaaaatntn acccangccc cccntttctt tncctnatnc cctnttccac cacaccatcc    120
cggaacaagt gctccaggat tccctgccca ctggccattt tggagtgtgn ccattgggta    180
gcaatgtgga aaccaccaag gcctttgtgg anaaaatgga gggggttgag ggagncccan    240
gaggggctna tttgagggcc tttgccactt gctcataggc gagctcnatc tcctcntnat    300
ctgnacangt ggaagcaaat tcttcccggg cgtnggnant gctnaagnac cgatgcactc    360
cccggaaggn ctn                                                       373

      <210> 314
      <211> 591
      <212> DNA
      <213> Homo sapien

      <220>
      <221> misc_feature
      <222> (1)...(591)
      <223> n = A,T,C or G

      <400> 314
cccgtgccgc cgccgcctcc tgggaagaga ggaagcggga gaggagccca cgtcgcctgt     60
cacccaatat ctccagccgc gcagtcccga agagtgtaag atgttcgcct gcgccaagct    120
cgcctgcacc ccctctctga tccgagctgg atccagagtt gcatacagac caatttctgc    180
atcagtgtta tctcgaccag aggctagtag gactggagag ggctctacgg tatttaatgg    240
ggcccagaat ggtgtgtctc agctaatcca aagggagttt cagaccagtg caatcagcag    300
agacattgat actgctgcca aatttattgg tgcaggtgct gcaacagtag gagtggctgg    360
ttctggtgct ggtattggaa cagtctttgg cagccttatc attggttatg ccagaaaccc    420
ttcgctgaag cagcagctgt tctcatatgc tatcctggga tttgccttgt ctgaagctat    480
gggtctcttt tgtttgatgg ttgctttctt gattttgttt gccatgtaac aaattactgc    540
ttgacatgtt ggcattcata ttaattacng atgtaattct gtgtatctta c             591

      <210> 315
```

<211> 591
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(591)
<223> n = A,T,C or G

<400> 315
aagcccttca ccaacaaaga tgcctatact tgtgcaaatt gcagtgcttt tgtccacaaa 60
ggctgccgag aaagtctagc ctcctgtgca aaggtcaaaa tgaagcagcc caaagggagc 120
cttcaggcac atgacacatc atcactgccc acggtcatta tgagaaacaa gccctcacag 180
cccaaggagc gtcctcggtc cgcagtcctc ctggtggatg aaaccgctac caccccaata 240
tttgccaata gacgatccca gcagagtgtc tcgctctcca aaagtgtctc catacagaac 300
attactggag ttggcaatga tgagaacatg tcaaacacct ggaaattcct gtctcattca 360
acagactcac taaataaaat cagcaaggtc aatgagtcaa cagaatcact tactgatgag 420
ggtacagaca tgaatgaagg acaactactg ggagactttg agattgagtc caaacagctg 480
gaagcagagt cttggagtcg gataatagac agcaagtttc taaaacagcc aaaagaaaga 540
tgtgggtcaa acngcgagaa gtaatatatg agttggatgc agacagagtt t 591

<210> 316
<211> 591
<212> DNA
<213> Homo sapien

<400> 316
gtttttataa gaataaaatt ccattcaagc cagatggtgt ttacattgaa gaagttctaa 60
gtaaatggaa aggagattat gaaaaactgg agcacaacca cacttacatt caatggcttt 120
tccccctgag agaacaaggc ttgaacttct atgccaaaga actaactaca tatgaaattg 180
aggaattcaa aaaaacaaaa gaagcaatta gaagattcct cctggcttat aaaatgatgc 240
tagaattttt tggaataaaa ctgactgata aaactggaaa tgttgctcgg gctgttaact 300
ggcaggaaag atttcagcat ctgaatgagt cccagcacaa ctatttaaga atcactcgta 360
ttcttaaaag ccttggtgag cttggatatg aaagttttaa atctcctctt gtaaaattta 420
ttcttcatga agctcttgtg gagaatacta ttcccaatat taagcagagt gctctagagt 480
attttgttta tacaattaga gacagaagag aaaggagaaa gctcctgcgg ttcgcccaga 540
aacactacac gccttcagag aactttatct ggggacccgc ctcgaaaaga a 591

<210> 317
<211> 323
<212> DNA
<213> Homo sapien

<400> 317
ccaagctacg gaagcaagtg gaagagattt ttaatttgaa atttgctcaa gctcttggac 60
tcaccgaggc agtaaaagta ccatatcctg tgtttgaatc aaacccggag ttcttctatg 120
tggaaggctt gccagagggg attcccttcc gaagccctac ctggtttgga attccacgac 180
ttgaaaggat cgtccacggg agtaataaaa tcaagttcgt tgttaaaaaa cctgaactag 240
ttatttccta cttgcctcct gggatggcta gtaaaataaa cactaaagct ttgcagtccc 300
ccaaaagacc acgaagtcct ggg 323

<210> 318
<211> 591
<212> DNA

<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(591)
<223> n = A,T,C or G

<400> 318
gatggcgtac ttggcttgga gactggcgcg gcgttcgtgt ccgagttctc tgcaggtcac 60
tagtttcccg gtagttcagc tgcacatgaa tagaacagca atgagagcca gtcagaagga 120
ctttgaaaat tcaatgaatc aagtgaaact cttgaaaaag gatccaggaa acgaagtgaa 180
gctaaaactc tacgcgctat ataagcaggc cactgaagga ccttgtaaca tgcccaaacc 240
aggtgtattt gacttgatca acaaggccaa atgggacgca tggaatgccc ttggcagcct 300
gcccaaggaa gctgccaggc agaactatgt ggatttggtg tccagtttga gtccttcatt 360
ggaatcctct agtcaggtgg agcctggaac agacaggaaa tcaactgggt ttgaaactct 420
ggtggtgacc tccgaagatg gcatcacaaa gatcatgttc aaccggccca aaaagaaaaa 480
tgccataaac actgagatgt atcatgaaat tatgcgtgca cttaaagctg ccagcaanga 540
tgactcaatc atcacttgtt ttaacaggaa atggtgacta ttacagtagn g 591

<210> 319
<211> 591
<212> DNA
<213> Homo sapien

<400> 319
gaattcggca cgaggttgct gctaagcgaa cgccctttgg agcttacgga ggccttctga 60
aagacttcac tgctactgac ttgtctgaat ttgctgccaa ggctgccttg tctgctggca 120
aagtctcacc tgaaacagtt gacagtgtga ttatgggcaa tgtcctgcag agttcttcag 180
atgctatata tttggcaagg catgttggtt tgcgtgtggg aatcccaaag gagaccccag 240
ctctcacgat taataggctc tgtggttctg gttttcagtc cattgtgaat ggatgtcagg 300
aaatttgtgt taaagaagct gaagttgttt tatgtggagg aaccgaaagc atgagccaag 360
ctccctactg tgtcagaaat gtgcgttttg gaaccaagct tggatcagat atcaagctgg 420
aagattcttt atgggtatca ttaacagatc agcatgtcca gctccccatg gcaatgactg 480
cagagaatct tgctgtaaaa cacaaaataa gcagagaaga atgtgacaaa tatgccctgc 540
agtcacagca gagatggaaa gctgctaatg atgctggcta ctttaatgat g 591

<210> 320
<211> 591
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(591)
<223> n = A,T,C or G

<400> 320
ggctccggcg tctgcagggg tcgccgagct aacccgtggc taggcgagtg gggcggggcg 60
gccggcacca tgtcgaggca ggcgaaccgt ggcaccgaga gcaagaaaat gagctctgag 120
ctcttcaccc tgacctatgg tgccctggtc acccagctat gtaaggacta tgaaaatgat 180
gaagatgtga ataaacagct ggacaaaatg ggctttaaca ttggagtccg gctgattgaa 240
gatttcttgg ctcggtcaaa tgttgggagg tgccatgact ttcgggaaac tgcggatgtc 300
attgccaagg tggcgttcaa gatgtacttg ggcatcactc caagcattac taattggagc 360
ccagctggtg atgaattctc cctcattttg gaaaataacc ccttggtgga ctttgtggaa 420

cttcctgata accactcatc ccttatttat tccaatctct tgtgtggggt gttgcgggga 480
gctttggaga tggtccagat ggctngngga ggcccaagtt tgtccaggac accctnaaag 540
gagacgggng tgacagaaat ccggatgaga ttcatcaggc ggattganga c 591

<210> 321
<211> 260
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(260)
<223> n = A,T,C or G

<400> 321
ctgcttggct ccacacgtgg gccgccgtag gtattccgac cggtaattcc tcctattggt 60
gtgcagcagc cacattgaag gatagagtgg cagcagaggc caaggatcgt gagttgatgg 120
agtttgctgc tgaaaatgaa gggaagtctg gggaggtct ccacagcgta gctgaggggg 180
tgcggctaag tccagagcct ggcagggagg gagtaaggga cttagcaggg gcggaggagt 240
tctgcggngg anaggagggg 260

<210> 322
<211> 559
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(559)
<223> n = A,T,C or G

<400> 322
ttccacatga catggagtgt gaagctggat gagcacatca ttccactggg aagcatggca 60
nttaacagca tctcaaaact gactnanctc acccagtctt ccatgtattc acttcctaat 120
gcacccactc tggcanacct gnaggacnat acacatgaag ncantgatga tcagccagan 180
aancctcact ttgactctcg canngtgata tttgagctgg attcatgcaa tggnagtggg 240
aaagtttgcc ttgtctacaa aagtgggaaa ccagnattag cagaanacac tgagatctgg 300
ttcctgnaca nancgttata ctggcatttt ctcacanaca cctttactgc ctattaccgc 360
ctgctcatca cccacctggg cctgccccag tggcaatatg ccttcccagc tatggcatta 420
gcccacaggc caagcaatgg ttcagcatgt ataaacctat cacctacaac acaaacctgc 480
tcacagaaga naccgactcc tttgtgaata agctagatcc canctnagtg tttaagagca 540
agaacaagat cgttatccc 559

<210> 323
<211> 492
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(492)
<223> n = A,T,C or G

<400> 323

cctgtctccc agccgtacca gcgagggctc ggccggcagc gccgggctgg ggggcggcgg 60
cgccggcgcc ggagccgggg tgggtgcagg cggcggcggg ggcagcggcg cgagcagcgg 120
cggcggggcc gggggctgc aacccagcag ccgcgctggc ggcggccggc cctccagccc 180
cagcccgtcg gtggtgagcg agaaggagaa ggaagagttg gagcggctgc agaaagagga 240
ggaggagagg aagaagaggc tgcagctgta tgtgttcgtg atgcgctgca tcgcctaccc 300
ctttaatgcc aagcagccca ccgacatggc tcgccggcag cagaagatca gcaaacagca 360
gctgcagaca gtcaaggacc ggtttcaggc tttcctcaat ggggaaaccc anatcatggc 420
tgacgaagcc ttcatgaacc gctgtngcag agttactatg aggtgttcct gaagaccacc 480
cgtgtggccg ca 492

<210> 324
<211> 474
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(474)
<223> n = A,T,C or G

<400> 324
aatttcagca acatacttct caatttcttc aggatttaaa atcttgaggg attgatctcg 60
cctcatgaca gcaagttcaa tgtttttgcc acctgactga accacttcca ggagtgcctt 120
gatcaccagc ttaatggtca natcatctgt ttcaatggct tcgtcagtat agttcttctc 180
cagnaactca cgcactgact tggcaccccg gcctatggca ttggccttcc aggcatggta 240
tgtgcccgag gggtcagtct gatagagcct aggagtgcca tcaaagtcga aacccacgat 300
gagggcagag atgccaaacg gcctgcgccc attgctctgc gtataacgct gcttcanact 360
ggcgatgtag cgggtgatgt actccacagt gaccgggtcc tccacagtca gccggtggct 420
ctggcactcc acccgggccc tgttgatgac tatccttgca tcggcggtga ggcc 474

<210> 325
<211> 532
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(532)
<223> n = A,T,C or G

<400> 325
gaggagacag gacagagcgt ctggagaggc aggaggacac cgagttcccc gtgttggcct 60
ccaggtcctg tgcttgcgga gccgtccggc ggctgggatc gagccccgac aatgggcaac 120
gcgcaggagc ggccgtcaga gactatcgac cgcgagcgga aacgcctggt cgagacgctg 180
caggcggact cgggactgct gttggacgcg ctgctggcgc ggggcgtgct caccgggcca 240
gagtacgagg cattggatgc actgcctgat gccgagcgca gggtgcgccg cctactgctg 300
ctggtgcagg gcaagggcga ggccgcctgc caggagctgc tacgctgtgc ccagcgtacc 360
gcgggcgcgc cggaccccgc ttgggactgg cagcacgtgg gtccgggcta ccgggaccgc 420
agctatgacc ctccatgccc aggccactgg acgccggagg cacccggctc ggggaccaca 480
tgccccgggt tgcccagact tcagaccctg acgaggncgg gggccctgag gg 532

<210> 326
<211> 322
<212> DNA

<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(322)
<223> n = A,T,C or G

<400> 326
caaaattaac atttttatta aatcaagtta aaaaaaatgt tcagtgtana aaagtcaaca 60
agggttttaa caaaaccaaa atataccttt ttatacaata tatgtatata ttagcagcaa 120
actacttctg anattctctt tcttttatgt tcttctagtt attttaaaga aagcataaac 180
aatgtatatt agtatggaat gtcagcaaat ccactcttag tcctttattc tgtgatttgg 240
gccttctaca aaatactttg tgattctcac taatgaatat taagaacata cccaatttta 300
actaaaaagt agtgaaacag tg 322

<210> 327
<211> 387
<212> DNA
<213> Homo sapien

<400> 327
aaaaccgtgt actattagcc atggtcaacc ccaccgtgtt cttcgacatt gccgtcgacg 60
gcgagccctt gggccgcgtc tcctttgagc tgtttgcaga caaggtccca aagacagcag 120
aaaattttcg tgctctgagc actggagaga aaggatttgg ttataagggt tcctgctttc 180
acagaattat tccagggttt atgtgtcagg gtggtgactt cacacgccat aatggcactg 240
gtggcaagtc catctatggg gagaaatttg aagatgagaa cttcatccta aagcatacgg 300
gtcctggcat cttgtccatg gcaaatgctg gacccaacac aaatggttcc cagtttttca 360
tctgcactgc caagactgag tggttgg 387

<210> 328
<211> 502
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(502)
<223> n = A,T,C or G

<400> 328
agcagcccgg cgcggccgcc gcgccggcgg gcggcaaggc tccgggccag catgggggct 60
tcgtggtgac tgtcaagcaa gagcgcggcg agggtccacg cgcgggcgag aaggggtccc 120
acgaggagga gccggtgaag aaacgcggct ggcccaaggg caagaagcgg aagaagattc 180
tgccgaatgg gcccaaggca ccggtcacgg gctacgtgcg cttcctgaac gagcggcgcg 240
agcagatccg cacgcgccac ccggatctgc cctttcccga gatcaccaag atgctgggcg 300
ccgagtggag caagctgcag ccaacggaaa agcagcggta cctggatgag gccnagagag 360
agaagcagca gtacatgaag gagctgcggg cgtaccagca gtctgaagcc tataagatgt 420
gcacggagaa gatccaggag aagaagatca agaaagaaga ctcgagctct gggctcatga 480
acactcttct gaatggacac aa 502

<210> 329
<211> 463
<212> DNA
<213> Homo sapien

```
<220>
<221> misc_feature
<222> (1)...(463)
<223> n = A,T,C or G

<400> 329
caagttgcac attttaattt acaattttta ccaataaaaa ggattagttt acaaaaaggg    60
aagtccttta tacaaaataa ggacaatttg taaaganaat ccactgtcat gttttgcctt   120
gtcaagtcaa aactcaaata gcttgttttg gtaaaattat tccagaaaca taatccagac   180
aaaatcaata acgtcatcag cttcctaacc atgtttaana ggaataactt catgaacatt   240
ttgccctgaa ctgaanagtt ctaaatactt gtaaaccttt aggaaaaaat gactgctcgc   300
aggcagcttg actggtaaga gggtacacca nagactccgg gtcactcact gtcagaatat   360
tcttatacat acaatgagtc tccacgcctg tacaatgagt gtcgtgcaac ataattggag   420
taatggcctc taaaatttta caagtaaact ttattgnggc ccc                      463

<210> 330
<211> 500
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(500)
<223> n = A,T,C or G

<400> 330
taattataga tctacaaaat atgaaatgta ttccaagaat gcagaaaaac catctagaag    60
caaaaggact ataaaacaaa aacagagaag aaaattcatg gctaaaccag ctgaagaaca   120
gcttgatgtg ggacagtcta aagatgaaaa catacataca tcacatatta cccaagacga   180
atttcaaaga aattcagaca gaaatatgga agagcatgaa gagatgggaa atgattgtgt   240
ttccaaaaaa acagatgcca cctgtgggaa gcaagaaaag tagcactaga aaagataagg   300
aagaatctaa aaagaagcgc ttttccagtg agtccaagaa caaacttgtn cctgaagaag   360
tgacttcaac tgtcacgaaa agtcgaanaa tttccangcg tccatctgat tggtgggtgg   420
taaaancaga ggagagtcct gtttatagca attcttcagt aagaaatgaa ttaccaantg   480
catcacaatn ntgcccggaa                                               500

<210> 331
<211> 494
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(494)
<223> n = A,T,C or G

<400> 331
tctctctctc tctcaaaatt acagtgttca ttgtcattga cctcagcagc aaatttgact    60
tgaattcact taggatcgca ggaatcaggg gaaagtgatt ttaaaggtgg tttctccagc   120
acattttaag aaaagggacc aaaagttatt ttagcttcct caatagattg catgttgctt   180
attaggataa taaattaata ttaaatgcaa tatatgtctt gnctttatta tggcatctat   240
ttaggagttg ttcaaatcac tgcagtaggg ctctgcaaat aaaataatgn aacctattat   300
catggatcta atgnactgna actttatcag tgaaaggnaa aatctcaaat aacaagtaca   360
```

```
aacattggac aattacctat aaagatttgt aaaaggaaaa tttttccata gatttcattc      420
ttggcatttt gtaaagacga ccctgcagnc ccctgtttgn aacttttttta ataaaataga      480
catctgttta cttg                                                        494

<210> 332
<211> 538
<212> DNA
<213> Homo sapien

<400> 332
aaagaacaaa tggaacgcga tggttgttct gaacaagagt ctcaaccgtg tgcatttatt      60
gggataggaa atagtgacca agaaatgcag cagctaaact tggaaggaaa gaactattgc      120
acagccaaaa cattgtatat atctgactca gacaagcgaa agcacttcat gttgtctgta      180
aagatgttct atggcaacag tgatgacatt ggtgtgttcc tcagcaagcg gataaaagtc      240
atctccaaac cttccaaaaa gaagcagtca ttgaaaaatg ctgacttatg cattgcctca      300
ggaacaaagg tggctctgtt taatcgacta cgatcccaga cagttagtac cagatacttg      360
catgtagaag gaggtaattt tcatgccagt tcacagcagt ggggagcctt ttttattcat      420
ctcttggatg atgatgaatc agaaggagaa gaattcacag tccgagatgg ctacatccat      480
tatggacaaa cagtcaaact tgtgtgctca gttactggca tggcactccc aagattga        538

<210> 333
<211> 499
<212> DNA
<213> Homo sapien

<400> 333
ctcagcctgc gggactgctc ggctcggctt ctaggcggtt ttgatgaaca cctggcttta      60
ttcttgcaat gaagaaaggt tctcaacaaa aaatattctc caaagcaaag ataccatcat      120
catctcactc tcctatccca tcatctatgt ccaatatgag atctaggtca ctttcacctt      180
tgattggatc agagactcta ccttttcatt ctggaggaca gtggtgtgag caagttgaga      240
ttgcagatga aaacaatatg cttttggact atcaagacca taaaggagct gattcacatg      300
caggagttag atatattaca gaggccctca ttaaaaaact tactaaacag gataatttgg      360
ctttgataaa atctctgaac ctttcacttt ctaaagacgg tggcaagaaa tttaagtata      420
ttgagaattt ggaaaaatgt gttaaacttg aagtactgaa tctcagctat aatctaatag      480
ggaagattga aaagtcgga                                                   499

<210> 334
<211> 561
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(561)
<223> n = A,T,C or G

<400> 334
ttcccggtag ttcagctgca catgaataga acagcaatga gagccagtca gaaggacttt      60
gaaaattcaa tgaatcaagt gaaactcttg aaaaaggatc caggaaacga agtgaagcta      120
aaactctacg cgctatataa gcaggccact gaaggacctt gtaacatgcc caaaccaggt      180
gtatttgact tgatcaacaa ggccaaatgg gacgcatgga atgcccttgg cagcctgccc      240
aaggaagctg ccaggcagaa ctatgtggat ttggtgtcca gtttgagtcc ttcattggaa      300
tcctctagtc aggtggagcc tggaacagac aggaaatcaa ctgggtttga aactctggtg      360
gtgacctccg aagatggcat cacaaagatc atgttcaacc cggcccaaaa agaaaaatgc      420
```

cataaacact gagatgtatc atgaaattat gcgtgcactt aaagctgcca gcaaggatga 480
ctcaatcatc actgttttaa cangaaatgg tgactattac agtagtggga atgatctgac 540
taacttcnct gatattcccc c 561

<210> 335
<211> 551
<212> DNA
<213> Homo sapien

<400> 335
aagctggtca tggctgggga gaccaccaac tcccgcggcc agcggctgcc ccagaaggga 60
gacgtggaga tgctgtgcgg cgggccgccc tgccagggct tcagcggcat gaaccgcttc 120
aattcgcgca cctactccaa gttcaaaaac tctctggtgg tttccttcct cagctactgc 180
gactactacc ggccccggtt cttcctcctg gagaatgtca ggaactttgt ctccttcaag 240
cgctccatgg tcctgaagct caccctccgc tgcctggtcc gcatgggcta tcagtgcacc 300
ttcggcgtgc tgcaggccgg tcagtacggc gtggcccaga ctaggaggcg ggccatcatc 360
ctggccgcgg cccctggaga gaagctccct ctgttcccgg agccactgca cgtgtttgct 420
ccccgggcct gccagctgag cgtggtgggt ggatgacaag aagtttgtga gcaacataac 480
caggttgagc tcgggtcctt tccggaccat acggtgcgag aaacgatgtc cgacctgccg 540
gaagtgcgga a 551

<210> 336
<211> 540
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(540)
<223> n = A,T,C or G

<400> 336
aggtctatgt ctactgaagg caataaacga ggaatgatcc agcttattgt tgcaaggaga 60
ataagcaagt gcaatgagct gaagtcacct gggagccccc ctggacctga gctgcccatt 120
gaaacagcgt tggatgatag agaacgaaga atttcccatt ccctctacag tgggattgag 180
gggcttgatg aatcgcccag cagaaatgct gccctcagta ggataatggg taaataccag 240
ctgtccccta cagtgaatat gccccaagat gacactgtca ttatagaaga tgacaggttg 300
ccagtgcttc ctccacatct ctctgaccag tcctcttcca gctcccatga tgatgtgggg 360
tttgtgacgg cagatgctgg tacttgggcc aaggctgcaa tcagtgattc agccgactgc 420
tctttgagtc cagatgttga tccagttctt gcttttcaac gaaaaaggat ttggacgtca 480
gaagtatgtc agaaaaacgc accaaagcaa ttttcanatg ccagtcaatt ggatttcgtt 540

<210> 337
<211> 422
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(422)
<223> n = A,T,C or G

<400> 337
gcagcaggaa cagttacagc agcagcagca acagcagctg ttgcaacagc agcaggaaca 60

```
attgcagcag caacaactgc agcctcctcc cctggagccc gaggaggagg aagaggtgga      120
gctggagctc atgccggtgg acctggggtc agagcaggag ctggagcagc agcggcagga      180
gttggagcgg cagcaggagc tggaacggca gcaggagcag cggcagctgc agctcaaact      240
gcaggaggag ctgcagcagc tggagcaaca gctggagcag cagcagcagc agctggagca      300
gcaggaggtg cagctggagc tgaccccggt ggagctaggc gcccagcagc aggaggtgca      360
gctggagctg acccccgtgc agccggagct gcagctggaa ctggtgccan cccaggggc       420
gg                                                                     422

      <210> 338
      <211> 601
      <212> DNA
      <213> Homo sapien

      <220>
      <221> misc_feature
      <222> (1)...(601)
      <223> n = A,T,C or G

      <400> 338
catcttacga acgctctatg atgtcttatg agcggtctat gatgtcccct atggctgaac       60
gctctatgat gtcagcctac gagcgctcta tgatgtcagc ctacgagcgc tctatgatgt      120
cccctatggc tgagcgctct atgatgtcag cttatgaacg ctccatgatg tcagcttatg      180
aacgctccat gatgtcccca atggctgatc gatctatgat gtccatgggt gctgaccggt      240
ctatgatgtc gtcatactct gctgctgacc ggtctatgat gtcatcgtac tctgcagctg      300
accgatctat gatgtcatct tatactgctg atcgttcaat gatgtctatg gctgctgatt      360
cttacaccga ttcttacact gacacatata cagaggcata tatggtgcca cctttgcctc      420
ctgaagagcc cccaacaatg ccaccgttgc cacctgagga gccaccaatg acaccaccat      480
tgcctnctga ggaaccaccc agagggtcca gcattgccca cttgagcagt cagcattaac      540
cagcttgaaa atacttggcc ctacanangg tgccatcatt accatctgaa gagctgtatc      600
g                                                                      601

      <210> 339
      <211> 440
      <212> DNA
      <213> Homo sapien

      <220>
      <221> misc_feature
      <222> (1)...(440)
      <223> n = A,T,C or G

      <400> 339
agagggagga ggcccaactg gtgatgctgc tgctgctgct gctgccgccg ccgccgcctc       60
tattgctgat actctagtgg ggctggaagg gtggttccta ttcgcaccat cgccaaccag      120
agacagaggg aaaaaaaaaa ccggcagcca ctgctgatgt tgggttcgga ggctgcatcc      180
gactcggtca caaggaaaat ggattcagtt tgcatctctc cctcctttaa acagcttctc      240
cgggtctcag catggtatca aagcttgaaa gagagaagac tcaagaagcg aagaggattc      300
gtgagctgga gcagcgcaag cacacggtgc tggtgacaga actcaaagcc aagctccatg      360
aggagaagat gaaggagctg caggctgtga gggagaacct tatcaagcag cacgacagga      420
aatgtcaang acggtgaagg                                                  440

      <210> 340
      <211> 450
      <212> DNA
```

<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(450)
<223> n = A,T,C or G

<400> 340
gatttccagg ggcggatatt gagtgtcgac ccagaggaag aaagggagga gggcccgcct 60
aggattcctc aggccgacca gtggaagtct tcaaacaaga gcctggtgga ggctctgggg 120
ctggaagccg agggtgcagt tcctgagaca cagactttga ccggatggag taaggggttc 180
attggcatgc acagggaaat gcaagtcaac cccatttcaa agcggatggg gcccatgact 240
gtggtcagga tggacgcttc agtccagcca ggccttttc ggaccctgct ccagtttctt 300
tatacgggac aactggatga aaaggaaaag gatttggtgg gcctggctca gatcgcagag 360
gtcctcgaga tgttcgattt gaggatgatg gtggaaaaca tcatgaacaa ggaagccttc 420
atgaaccagg agattacgaa nncctttcac 450

<210> 341
<211> 451
<212> DNA
<213> Homo sapien

<400> 341
aacagctatt aaaacagaaa atggatgaac ttcataagaa gttgcatcag gtggtggaga 60
catcccatga ggatctgccc gcttcccagg aaaggtccga ggttaatcca gcacgtatgg 120
ggccaagtgt aggctcccag caggaactga gagcgccatg tcttccagta acctatcagc 180
agacaccagt gaacatggaa aagaacccaa gagaggcacc tcctgttgtt cctcctttgg 240
caaatgctat ttctgcagct ttggtgtccc cagccaccag ccagagcatt gctcctcctg 300
ttcctttgaa agcccagaca gtaacagact ccatgtttgc agtggccagc aaagatgctg 360
gatgtgtgaa taagagtact catgaattca agccacagag tggagcagag atcaaagaag 420
ggtgtgaaac acataaggtt gccaacacaa g 451

<210> 342
<211> 498
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(498)
<223> n = A,T,C or G

<400> 342
ctcaagcagg ctattgaaga ggaaggaggc gatccagata atattgaatt aactgtttca 60
actgatactc caaacaagaa accaactaaa ggcaaaggta aaaaacatga agcagatgag 120
ttgagtggag atgcttctgt gggaagatga tgcttttatc aaggactgtg aattggagaa 180
tcaagaggca catgagcaag atggaaatga tgaactaaag gactctgaag aatttggtga 240
aaatgaagaa gaaaatgtgc attccaagga gttactctct gcagaagaaa acaagagagc 300
tcatgaatta atagaggcag aaggaataga agatatagaa aaagaggaca tcgaaagtca 360
ggaaattgaa gctcaagaag gtgaagatga tacctttcta acagcccaag atggtgagga 420
agaagaaaat gagaaagata tagcagggtt ctggtgatgg cncacaagaa gtatntaaac 480
ctcttccttc aaaaaggg 498

<210> 343

```
<211> 491
<212> DNA
<213> Homo sapien

<400> 343
ccgacccta ctcggcggcg caactccaca accagtacgg ccccatgaat atgaacatgg     60
gtatgaacat ggcagcagcc gcggcccacc accaccacca ccaccaccac caccccggtg    120
cctttttccg ctatatgcgg cagcagtgca tcaagcagga gctaatctgc aagtggatcg    180
accccgagca actgagcaat cccaagaaga gctgcaacaa aactttcagc accatgcacg    240
agctggtgac acacgtctcg gtggagcacg tcggcggccc ggagcagagc aaccacgtct    300
gcttctggga ggagtgtccg cgcgagggca agcccttcaa ggccaaatac aaactggtca    360
accacatccg cgtgcacaca ggcgagaaac ccttccctgc ccttccgggt gtggcaaagt    420
cttcgcgcgc tccgagaacc tcaagatcca caaaaggacc acacagggga gaagccgtcc    480
agtggagttg a                                                         491

<210> 344
<211> 412
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(412)
<223> n = A,T,C or G

<400> 344
gtgcgctgtc ttcccgcttg cgtcagggac ctgcccgact cagtggccgc catggcatca     60
gatgaaggca aactttttgt tggagggctg agttttgaca ccaatgagca gtcgctggag    120
caggtcttct caaagtacgg acagatctct gaagtggtgg ttgtgaaaga cagggagacc    180
cagagatctc ggggatttgg gtttgtcacc tttgagaaca ttgacgacgc taaggatgcc    240
atgatggcca tgaatgggaa gtctgtagat ggacggcaga tccgagtaga ccaggcaggc    300
aagtcgtcan acaaccgatc ccgtgggtac cgtggtggct ctgccggggg ccggggcttc    360
ttccgtgggg gcccgangac ggggcccgtg ggttctctaa aagaagaggg ga            412

<210> 345
<211> 498
<212> DNA
<213> Homo sapien

<400> 345
aactagtctc gggccatcct ttctgcgcac ccggtgtcgc tgggctgcac cccgggcggg     60
gacgtccgcc gggcacggga gggggccaag atgccgatca ataaatcaga gaagccagaa    120
agctgcgata atgtgaaggt tgttgttagg tgccggcccc tcaatgagag agagaaatca    180
atgtgctaca aacaggctgt cagtgtggat gagatgaggg gaactatcac tgtacataag    240
actgattctt ccaatgaacc tccaaagaca tttacttttg atactgtttt tggaccagag    300
agtaaacaac ttgatgttta taacttaact gcaagaccta ttattgattc tgtacttgaa    360
ggctacaatg ggactatttt tgcatatgga caaaccggaa caggcaaaac ttttaccatg    420
gaaaggtgtc gagctattcc tgaacttaga ggaataattc cccaatttct ttgctcacaa    480
tatttgggcc atatttgc                                                  498

<210> 346
<211> 427
<212> DNA
<213> Homo sapien
```

```
<220>
<221> misc_feature
<222> (1)...(427)
<223> n = A,T,C or G

<400> 346
agatggcggt cgccgtgaga actttgcagg aacagctgga aaaggccaaa gagagtctta     60
agaacgtgga tgagaacatt cgcaagctca ccgggcggga tccgaatgac gtgaggccca    120
tccaagccag attgctggcc ctttctggtc ctggtggagg tagaggacgt ggtagtttat    180
tactgaggcg tggattctca gatagtggag gaggaccccc agccaaacag agagaccttg    240
aaggggcagt cagtaggctg ggcggggagc gtcggaccag aagagaatca cgccaggaaa    300
gcgaccccgga ggatgatgat gttaaaaagc cagcattgca gtcttcannt gtagctacct    360
cccaaagagc gccccacgta gagaccttat ccagggatca aaattttgga tgaaaaaggg    420
gaaagcc                                                              427

<210> 347
<211> 280
<212> DNA
<213> Homo sapien

<400> 347
cacagaaagt tctccgctcc cagacatggg tccctcggct tcctgcctcg gaagcgcagc     60
agcaggcatc gtgggaaggt gaagagcttc cctaaggatg acccgtccaa gccggtccac    120
ctcacagcct tcctgggata caaggctggc atgactcaca tcgtgcggga agtcgacagg    180
ccgggatcca aggtgaacaa gaaggaggtg gtggaggctg tgaccattgt agagacacca    240
cccatggtgg ttgtgggcat tgtgggctac gtggaaaccc                          280

<210> 348
<211> 411
<212> DNA
<213> Homo sapien

<400> 348
caactatgat gtgcctgaaa aatgggcacg attctatact gcagaagtag ttcttgcatt     60
ggatgcaatc cattccatgg gttttattca cagagatgtg aagcctgata acatgctgct    120
ggataaatct ggacatttga agttagcaga ttttggtact tgtatgaaga tgaataagga    180
aggcatggta cgatgtgata cagcggttgg aacacctgat tatatttccc ctgaagtatt    240
aaaatcccaa ggtggtgatg gttattatgg aagagaatgt gactggtggt cggttggggt    300
atttttatac gaaatgcttg taggtgatac accttttat gcagattctt tggttggaac    360
ttacagtaaa attatgaacc attaaaaatt cacttacctt tcctgatgat a             411

<210> 349
<211> 408
<212> DNA
<213> Homo sapien

<400> 349
gatgggcatc tctcgggaca actggcacaa gcgcccgcaaa accgggggca agagaaagcc     60
ctaccacaag aagcggaagt atgagttggg gcgcccagct gccaacacca agattggccc    120
ccgccgcatc cacacagtcc gtgtgcgggg aggtaacaag aaataccgtg ccctgaggtt    180
ggacgtgggg aatttctcct ggggctcaga gtgttgtact cgtaaaacaa ggatcatcga    240
tgttgtctac aatgcatcta ataacgagct ggttcgtacc aagaccctgg tgaagaattg    300
catcgtgctc atcgacagca caccgtaccg acagtggtac gagtcccact atgcgctgcc    360
```

cctgggccgc aagaagggag ccaaactgac ttctgaggaa gaagaaaa 408

<210> 350
<211> 409
<212> DNA
<213> Homo sapien

<400> 350
ggttccccca gctctgggta cccggctctg catcgcgtcg ccatgatggg ccatcgtcca 60
gtgctcgtgc tcagccagaa cacaaagcgt gaatccggaa gaaaagttca atctggaaac 120
atcaatgctg ccaagactat tgcagatatc atccgaacat gtttgggacc caagtccatg 180
atgaagatgc ttttggaccc aatgggaggc attgtgatga ccaatgatgg caatgccatt 240
cttcgagaga ttcaagtcca gcatccagcg gccaagtcca tgatcgaaat tagccggacc 300
caggatgaag aggttggaga tgggaccaca tcagtaatta ttcttgcagg ggaaatgctg 360
tctgtagctg agcacttcct ggagcagcag atgcacccaa caggtgggg 409

<210> 351
<211> 226
<212> DNA
<213> Homo sapien

<400> 351
aatcccaaac atataactga actcctcaca cccaattgga ccaatctatc accctataga 60
agaactaatg ttagtataag taacatgaaa acattctcct ccgcataagc ctgcgtcaga 120
ttaaaacact gaactgacaa ttaacagccc aatatctaca atcaaccaac aagtcattat 180
taccctcact gtcaacccaa cacaggcatg ctcataagga aaggtt 226

<210> 352
<211> 410
<212> DNA
<213> Homo sapien

<400> 352
gcggaggggc tggctgggca ggaggggttg gcggggcagc agggccgcgg ccatggggag 60
cttgaaggag gagctgctca aagccatctg gcacgccttc accgcactcg accaggacca 120
cagcggcaag gtctccaagt cccagctcaa ggtcctttcc cataacctgt gcacggtgct 180
gaaggttcct catgacccag ttgcccttga agagcacttc agggatgatg atgagggtcc 240
agtgtccaac cagggctaca tgccttattt aaacaggttc attttggaaa aggtccaaga 300
caactttgac aagattgaat tcaataggat gtgttggacc ctctgtgtca aaaaaaacct 360
cacaaagaat cccctgctca ttacagaaga agatgcattt aaaatatggg 410

<210> 353
<211> 380
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(380)
<223> n = A,T,C or G

<400> 353
gagtttattt agaaagtatc atagtgtaaa caaacaaatt gtaccacttt gattttcttg 60
gaatacaaga ctcgtgatgc aaagctgaag ttgtgtgtac aagactcttg acagttgtgc 120

```
ttctctagga ggntgggttt ttttaaaaaa agaattatct gngaaccata cgtgattaat      180
aaagatttcc tttaaggcan aggctggtcn agatgctgct gttatcttct gcctcagaca      240
gacagtataa gnggtcttgt ttctaagatt cctaccacca gttactttgg gccaagtatc      300
cacatcccct tgcgtatggg aggngggtga anagtgttgg atgcaaagng gttattatgg      360
gaagnagctc natggtaaaa                                                  380

      <210> 354
      <211> 379
      <212> DNA
      <213> Homo sapien

      <220>
      <221> misc_feature
      <222> (1)...(379)
      <223> n = A,T,C or G

      <400> 354
caacacatct ttattaaaca cctgaagtta ctgggaggag gccatgatgc tggacacact       60
gtcaaagtca atcttctcca caatgttctt gggtttaatg ctctcttctt ggctacagan      120
gaanatctgc cccgactngt cggcactcca gccgtatttg ctcatccaca cctttagctg      180
gctgtccgac aganccccga gcatntcggc cagcagccan cggncaatgt gctggtaagt      240
gatacccaca acatggcaga taaactttcg gacanagtct tcaaagccag ttataccttc      300
caagaggtcc atgttttcat ccagggcttg ccanaagcct ggaaatggca ggtctccaac      360
aggtccccca ggtacaaaa                                                   379

      <210> 355
      <211> 499
      <212> DNA
      <213> Homo sapien

      <220>
      <221> misc_feature
      <222> (1)...(499)
      <223> n = A,T,C or G

      <400> 355
gtccagagct gctggtgctc ccgttcccca gaccctaccc ctatccccag tggagccgga       60
gtgcgggcgc gccccaccac cgccctcacc atggtgctgt tggcagcagc ggtctgcaca      120
aaagcaggaa aggctattgt ttctcgacag tttgtggaaa tgacccgaac tcggattgag      180
ggcttattag cagcttttcc aaagctcatg aacactggaa aacaacatac gtttgttgaa      240
acagagagtg taagatatgt ctaccagcct atggagaaac tgtatatggt actgatcact      300
accaaaaaca gcaacatttt agaagatttg gagaccctaa ggctcttctc aagagtgatc      360
cctgaatatt gcgagcctta gaagagaatg aaatatctga gcactgnttt gatttgattt      420
ttgcttttga tgaaaatgtc gcactgggat acccgggang aatgttaact tggcacagat      480
canaaccttt cacagaaaa                                                   499

      <210> 356
      <211> 511
      <212> DNA
      <213> Homo sapien

      <220>
      <221> misc_feature
      <222> (1)...(511)
```

<223> n = A,T,C or G

<400> 356
gggcttctgc tgagggggca ggcggagctt gaggaaaccg cagataagtt tttttctctt 60
tgaaagatag agattaatac aactacttaa aaaatatagt caataggtta ctaagatatt 120
gcttagcgtt aagtttttaa cgtaatttta atagcttaag attttaagag aaaatatgaa 180
gacttagaag agtagcatga ggaaggaaaa gataaaaggt ttctaaaaca tgacggaggt 240
tgagatgaag cttcttcatg gagtaaaaaa tgtatttaaa agaaaattga gagaaaggac 300
tacagagccc cgaattaata ccaatagaag ggcaatgctt ttagattaaa atgaaggtga 360
cttaaacagc ttaaagttta ntttaaaagt tgtaggtgat taaaataatt tgaaggcgat 420
cttttaaaaa gagattaaac ccgaaggtga ttaaaagacc ttgaaatcca tgacgccagg 480
gagaattgcc gtcatttaaa gcctagttaa c 511

<210> 357
<211> 511
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(511)
<223> n = A,T,C or G

<400> 357
gatacttcac atttccctag ggacgggagc ccgaggggtc cgttcggccc tcttcctctc 60
gctgggccga caccccgctg taggaccgta acccttagtc ccaatgcctc cgtaagcgga 120
gttgagtggg tgcctgtggt tggagctgtg gaggtgtccc cggtggcgag cgcggccaga 180
actgcggtca cttaagtttt ccgtgtgcgg gttgcaagga gcgtgcgtgc gtctggtata 240
atttggcttc ctgagattct gcttacaaga aaggagtggg aaataccctt ggaaagaaaa 300
ctaaaacagt aagaaaacca aaacttattt ttacatggnt gtcagcacat ttaccgatat 360
ggacactttt cccaataatt tcctcctggt ggagacagtg gattgacagg ttctcagtcg 420
gaattccaga aaaatgttaa ttgatgaaaa gggtacnatg tgagcatcat aaagntaatt 480
attaanacac tgaaggctga acacacaagg g 511

<210> 358
<211> 401
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(401)
<223> n = A,T,C or G

<400> 358
acggatgaag atgatgacct tcaagaaaat gaagacaata aacaacataa agaaagcttg 60
aaaagagtga cctttgcttt accagatgat gcggaaactg aagatacagg tgttttaaat 120
gtaaagaaaa attctgatga agttaaatcc tcctttgaaa aaagacagga aaagatgaat 180
gaaaaaattg catctttaga aaaagagttg ttagaaaaaa agcccgtggc agcttcaggg 240
ggaagtgaca gcacagaaga ggccagagaa cacctcctgg aggagaccct acctttgcca 300
tctgcccgat ggccctgtga ttacagagga acccccttca ctggagattt ctttaacnga 360
ngatagagat cngnttggga tatgtntcct taagaaaacc t 401

<210> 359

```
<211> 511
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(511)
<223> n = A,T,C or G

<400> 359
gcgatgcccg cgcgcccagg acgcctcctc ccgctgctgg cccggccggc ggccctgact      60
gcgctgctgc tgctgctgct gggccatggc ggcggcgggc gctggggcgc ccgggcccag     120
gaggcggcgg cggcggcggc ggacgggccc cccgcggcag acggcgagga cggacaggac     180
ccgcacagca agcacctgta cacggccgac atgttcacgc acgggatcca gagcgcccgc     240
gcacttcgtc atgttcttcg cgccctggtg tggacacttg ccagcggctt gcagccgant     300
ttggaatgac cttggganga acaaatacaa cagcatggaa agaatgccaa aagtctatgt     360
ggnttaaagt ggacttgcac nggccacttc gactngtgct cccccaaggg gngggaagat     420
acccacctta aaacttttca accaagccaa aaactttgaa aaccaggtct cggattcaaa     480
atggaaaact gatgttcaac ctgaacaaga a                                    511

<210> 360
<211> 511
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(511)
<223> n = A,T,C or G

<400> 360
tactgggaga ctttgagatt gagtccaaac agctggaagc agagtcttgg agtcggataa      60
tagacagcaa gtttctaaaa cagcaaaaga aagatgtggt caaacggcaa gaagtaatat     120
atgagttgat gcagacagag tttcatcatg tcccgactct caagatcatg agtggtgtgt     180
cnagccnggg gatgatggcg gatctgnttt ttgagcanca gatggtagaa aaagctggtt     240
ccctgtttgg atgagcttga tcagtatccc atacccattc tttccagagg attcttggag     300
ccggaaagaa nggagtcttc ttggtgggat aaaaagtgaa aaagaacttt ctcttcaana     360
aggataggggg gatgtgcttt gtaaaatcan tttttcaggg ngganaatgc cnnaaccgtt    420
ttaaagaaaa acatnttggg naagtttttg tgggccaaca ttacccggtc ttgtaaacct     480
accttcaaag aacctttttg cccagggtta a                                    511

<210> 361
<211> 411
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(411)
<223> n = A,T,C or G

<400> 361
gctcagcggc ccgatcccac ggaagcgcgc tcggaggggt gggacccggc cggaccggag      60
atggcgccgc cagcgggcgg ggcggcggcg gcggcctcgg acttgggctc cgccgcagtg     120
```

```
ctcttggctg tgcacgccgc ggtgaggccg ctgggcgccg ggccagacgc cgaagcacaa     180
cttgcggagg ctgcagctta acgcggaccc tgagaagcct ggcgcttncn gctggaactt     240
cttggcgcgg gacctggggc ggtaatttga gtggccctga gtcatttcta caccatccag     300
gcccaccaca cgactaagct cacaagaagg ctgaactnnc tgattctnaa cctagaanta     360
cgtgcatcta tcagtgccng aagaaatgac aacataccac tggcaactct g              411

<210> 362
<211> 511
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(511)
<223> n = A,T,C or G

<400> 362
cgggggaccg ggctgccttg gcccctcagc gctcgcgtct tttccggcag ttggaacgct      60
tcctgttgtc ctcacccgta accgcctgtt gccccctgtc tcagagtccc tcacgcgtcc     120
cctcccgtct ttggctcgtt ggctgccgcc gccggggctt cgccagcctt caagtcgaga     180
ctactggccg aaggggcgtc tgcggctctc cgccgtcccc agccctgcct ctccctgggc     240
tctgccatgg caatgacagg ctcaacacct tgctcatcca tgagtaacca cacaaaggaa     300
agggtgacaa tgaccaaaag tgacactgga gaatttttat agcaacctta tcgctcacat     360
gaagaacgag aaatgagaca aaagaagtta gaaaaagggg atggaagaag aaggcctaaa     420
aaaatgaagg agaaaaccaa cttccgaaga tcaaccacat tgcttcggaa anggaaacaa     480
aantttcttt cgtttgaaan aaaaacaaan a                                    511


<210> 363
<211> 401
<212> DNA
<213> Homo sapien

<400> 363
caggatctgg ggagaaagag ccccatccct tctctctctg ccaccatttc ggacaccccg      60
cagggactcg ttttgggatt cgcactgact tcaaggaagg acgcgaaccc ttctctgacc     120
ccagctcggg cggccacctg tctttgccgc ggtgaccctt ctctcatgac cctgcggtgc     180
cttgagccct ccgggaatgg cggggaaggg acgcggagcc agtgggggac cgcggggtcg     240
gcggaggagc catccccgca ggcggcgcgt ctggcgaagg ccctgcggga gctcggtcag     300
acaggatggt actggggaag tatgactgtt aatgaagcca aagagaaatt aaaagaggca     360
ccagaaggaa ctttcttgat tagagatagc tcgcattcag a                         401

<210> 364
<211> 401
<212> DNA
<213> Homo sapien

<400> 364
agtcaaaggt ttcttttccc tttttaccat ggtttctaca aaaataacct tcaggaaaaa      60
gaaaatcagg aaaaaaattt tttttcaata atcttattcc ctatattaaa ttagatttga     120
agaggattaa cgttgtttta gtttgggtcc agatcagcct tatacaacat ttctaaactc     180
atttgtactt ttaaaaaatt taaacacaga cttctaaaat tacttgatgt aagtaattta     240
aatcacttat gaccaagtta ttaaccttat gaatcagaag tctgaccctt gtaggaaatt     300
atattcacat ataaagtaca tcagatcttt gccatatatt gatggttatt atgcataaac     360
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acattgagtt gtgttggaag cagatttata aacctgcatg t 401

<210> 365
<211> 361
<212> DNA
<213> Homo sapien

<400> 365
atctggagtt gcacaaatag ttctttagaa cataaaacta aatggattta tacataacag 60
ttacattcag catttaagag aggcagtaca aaaatgtgtt ctgcttttat ctgatataaa 120
ttgcatgtaa taccatgatt taaacaatat cagttatatt aactaatgcc atgagatata 180
tcttactcag aacgtctgat gtttcccata atagacagaa aaaatgcagt tgtatgagca 240
actgagtttc ttttcatctt caaattcatt tgtgatggtg ggaagatcta aggacaatcc 300
ttccattgaa gaagtaggaa aaacagttca gcactgttct gaactcatca aaaatgaaat 360
t 361

<210> 366
<211> 401
<212> DNA
<213> Homo sapien

<400> 366
cgggagcagc agaggtctag cagccgggcg ccgcgggccg ggggcctgag gaggccacag 60
gacgggcgtc ttcccggcta gtggagcccg gcgcggggcc cgctgcggcc gcaccgtgag 120
gggaggaggc cgaggaggac gcagcgccgg ctgccggcgg gaggaagcgc tccaccaggg 180
cccccgacgg cactcgttta accacatccg cgcctctgct ggaaacgctt gctggcgcct 240
gtcaccggtt ccctccattt tgaaagggaa aaaggctctc cccacccatt cccctgcccc 300
taggagctgg agccggagga gccgcgctca tggcgttcag cccgtggcag atcctgtccc 360
ccgtgcagtg ggcgaaatgg acgtggtctg cggtacgcgg c 401

<210> 367
<211> 401
<212> DNA
<213> Homo sapien

<400> 367
catggagtcg ggcaagatgg cgcctcccaa gaacgctccg agagatgcct tggtgatggc 60
acagatcctg aaggatatgg gaatcacaga gtatgaacca agggttataa atcaaatgtt 120
ggaatttgct ttccgttatg tgactacaat tctggatgat gcaaaaattt attcgagcca 180
tgctaagaaa cctaatgttg atgcagatga tgtgagactg gcaatccagt gtcgtgctga 240
ccaatctttt acctctcctc ccccaagaga ttttttactg gatatcgcaa ggcagaaaaa 300
tcaaacccct ttgccactga ttaagccata tgcaggacct agactgccac ctgatagata 360
ctgcttaaca gctccaaact ataggctgaa gtccttaatt a 401

<210> 368
<211> 401
<212> DNA
<213> Homo sapien

<400> 368
cggagcggta ggagcagcaa tttatccgtg tgcagcccca aactggaaag aagatgctaa 60
ttaaagtgaa gacgctgacc ggaaaggaga ttgagattga cattgaacct acagacaagg 120
tggagcgaat caaggagcgt gtggaggaga aagagggaat ccccccacaa cagcagaggc 180
tcatctacag tggcaagcag atgaatgatg agaagacagc agctgattac aagattttag 240

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gtggttcagt ccttcacctg gtgttggctc tgagaggagg aggtggtctt aggcagtgat      300
ggaccctcca ttttacctct ttaccctgtc gctcataatg aggcatcata tatcctctca      360
ctctctggga caccatagcc ctgccccctc ccctggatgc c                          401

      <210> 369
      <211> 174
      <212> DNA
      <213> Homo sapien

      <220>
      <221> misc_feature
      <222> (1)...(174)
      <223> n = A,T,C or G

      <400> 369
gcgagnnggg cgccaagcgc ggggccggag cggccttccc ggagtccttt gcgcggcacc       60
tggcgacaaa atggctgccc gagggagacg ggcggagcct cagggccggg aggctccggg      120
ccccgcgggc ggtggcggtg gcgggagccg ttgggctgag tcgggatcgg ggac            174

      <210> 370
      <211> 375
      <212> DNA
      <213> Homo sapien

      <220>
      <221> misc_feature
      <222> (1)...(375)
      <223> n = A,T,C or G

      <400> 370
tgcttttcca actttattta gaaaaacaaa tccaggtccc agtgcccccct gtaccctccc       60
cgaccccagc cataatttaa ataacttana gacagagttg gagggagggg acagganagg      120
ttggggtcac ggtggaagga ggaaganagc ccactacagc cgccgcagcg cccgcttctt      180
gtccgtcttt ttcttggccg ccagcttctt atcgcgctcg ccagcatgct tnttggccat      240
gggaccctca gcccctcccg ggccccctgg ggccccaggg tcggtggagg aagcttcagt      300
gccactggcc agggcccgac cggcttcggc cctgccgctg ggcccgccgg cgccccccgtg      360
gatctctgtg agcag                                                       375

      <210> 371
      <211> 375
      <212> DNA
      <213> Homo sapien

      <220>
      <221> misc_feature
      <222> (1)...(375)
      <223> n = A,T,C or G

      <400> 371
taaattctaa aaaatatttt aatacttgaa aacttctaaa acaaaaggta aggtaacatg       60
ttctttcaaa agtgaatttc acatgcaaac cattaattat atttatttta ctgngagata      120
aaagcaaaac ataacattcg gagaaagaga ccagtaactg acctatttat tttatattat      180
attaatgnga atcctcatta gaaatgtgat aacgttattg cacaaacaaa accgtgggca      240
gaaacatccc agcaatgcag gggcgcccat accgggttac aagggatgtc cagcatgtgt      300
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ttccctggaa cactcanagt ctgcactttt cctgcaaatg ggaccatgtc tgattattta 360
ttatgaaaga acact 375

<210> 372
<211> 164
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(164)
<223> n = A,T,C or G

<400> 372
cgctctgtnt cctcaacctc tacctggcgg aggttatatg taaagtcaga tgtgccactg 60
aacttgacag acacaaaatt ctactgcatt tgggctttat aatggcaagc ctgctctttt 120
tagtggtgaa cttgacttgc gcaatgctag ttcatggaga tgtc 164

<210> 373
<211> 401
<212> DNA
<213> Homo sapien

<400> 373
gcgctgttcg cctttgccta cctgcagctg tggcggctgc tcctgtaccg cgagcggcgg 60
ctgagttacc agagcctctg cctcttcctc tgtctcctgt gggcagcgct caggaccacc 120
ctcttctccg ccgccttctc gctcagcggc tccctgccct tgctccggcc gcccgctcac 180
ctgcacttct tcccccactg gctgctctac tgcttcccct cctgtctcca gttctccacg 240
ctctgtctcc tcaacctcta cctggcggag gttatatgta aagtcagatg tgccactgaa 300
cttgacagac acaaaattct actgcatttg ggctttataa tggcaagcct gctcttttta 360
gtggtgaact tgacttgcgc aatgctagtt catggagatg t 401

<210> 374
<211> 401
<212> DNA
<213> Homo sapien

<400> 374
ggaatgatac cattcagatt gatttggaga ctggcaagat tactgatttc atcaagttcg 60
acactggtaa cctgtgtatg gtgactggag gtgctaacct aggaagaatt ggtgtgatca 120
ccaacagaga gaggcaccct ggatcttttg acgtggttca cgtgaaagat gccaatggca 180
acagctttgc cactcgactt tccaacattt ttgttattgg caagggcaac aaaccatgga 240
tttctcttcc ccgaggaaag ggtatccgcc tcaccattgc tgaagagaga gacaaaagac 300
tggcggccaa acagagcagt gggtgaaatg ggtccctggg tgacatgtca gatctttgta 360
cgtaattaaa aatattgtgg caggattaat agcaaaaaaa a 401

<210> 375
<211> 401
<212> DNA
<213> Homo sapien

<400> 375
gagcggagtc cgctggctga cccgagcgct ggtctccgcc gggaaccctg gggcatggag 60
aggtctgagt acctcggccg cggcgcacgc tgcatcgcgg agccaggccg aggacgtgag 120

ggtggagggc tcctttcccg tgaccatgct tccgggagac ggtgtggggc ctgagctgat 180
gcacgccgtc aaggaggtgt tcaaggctgc cgctgtccca gtggagttcc aggagcacca 240
cctgagtgag gtgcagaata tggcatctga ggagaagctg gagcaggtgc tgagttccat 300
gaaggagaac aaagtggcca tcattggaaa gattcatacc ccgatggagt ataaggggga 360
gctagcctcc tatgatatgc ggctgaggcg taagttggac t 401

<210> 376
<211> 284
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(284)
<223> n = A,T,C or G

<400> 376
ggaacaaggt cgtgaaaaaa aaggtcttgg tgaggtgccg ccatttcatc tgtcctcatt 60
ctctgcgcct ttcgcagagc ttccancagc tggtatgttg ggccagagca tccggaggtt 120
cacaacctct gtggtccgta ggagccacta tgaggagggc cctgggaaga atttgccatt 180
ttcagtggaa aacaagtggt cgttactagc taagatgtgt ttgtactttg gatctgcatt 240
tgctacaccc ttccttgtan taagacacca actgcttaaa acat 284

<210> 377
<211> 401
<212> DNA
<213> Homo sapien

<400> 377
atttatgtta ttgcactctc ggtgtgattt atcgtatgta tctgataggt tttatgaatt 60
gttttgagtt gtaaactcct ataccctta ttaaaatgga cctaattaag tgatttatgc 120
tttgtgcaat ttcttaaatc agatctctct aggattgaag ggatccatag gtatctttca 180
cttagtgtga agcctagtag tatactttta tattcctgaa gagagaccag cattaacata 240
aagagagaag tcttaggaaa aaatatacct aagaattatt tttaaaattc atactgtgaa 300
ggagaatctg cctgcctatt tcctctccaa atttcagaaa ataacacaga gtgctatttg 360
cctgaacttt aatgagcttg actttgttat gattcaggga g 401

<210> 378
<211> 401
<212> DNA
<213> Homo sapien

<400> 378
ccagaacaca ggtgtcgtga aaactacccc taaaagccaa aatgggaaag gaaaagactc 60
atatcaacat tgtcgtcatt ggacacgtag attcgggcaa gtccaccact actggccatc 120
tgatctataa atgcggtggc atcgacaaaa gaaccattga aaaatttgag aaggaggctg 180
ctgagatggg aaagggctcc ttcaagtatg cctgggtctt ggataaactg aaagctgagc 240
gtgaacgtgg tatcaccatt gatatctcct tgtggaaatt tgagaccagc aagtactatg 300
tgactatcat tgatgcccca ggacacagag actttatcaa aaacatgatt acagggacat 360
ctcaggctga ctgtgctgtc ctgattgttg ctgctggtgt t 401

<210> 379
<211> 401
<212> DNA

<213> Homo sapien

<400> 379
tcagatatca ggtggcttct tcaaatgatt tttaagtatc tcgatgatga tgaagaacaa 60
agacatcaat caggattcag gaagacagct tttgcggaaa atgcttaaag ggaagcatca 120
aggattggtg ttgatatttg aaagtttaag agtggtatac ttttattcag tcaacacatg 180
acaaatgtaa aaggcactca tttgttgttc ctggaagaag cctggcagca ttccattcag 240
acatctgccc tttcatcgtc ccacttttta cttattgcag tcctttcagt ctgaatattt 300
cctcctgacg catcttctgc cgtccgaaat gactccctgc tcccagatcc tgtagccctt 360
attattgaca cctttcattt agaaatttag cacatgtcac a 401

<210> 380
<211> 401
<212> DNA
<213> Homo sapien

<400> 380
cctgactctc tgaggctcat tttgcagttg ttgaaattgt ccccgcagtt ttcaatcatg 60
tctgaaccaa tcagagtcct tgtgactgga gcagctggtc aaattgcata ttcactgctg 120
tacagtattg gaaatggatc tgtctttggt aaagatcagc ctataattct tgtgctgttg 180
gatatcaccc ccatgatggg tgtcctggac ggtgtcctaa tggaactgca agactgtgcc 240
cttcccctcc tgaaagatgt catcgcaaca gataaagaag acgttgcctt caaagacctg 300
gatgtggcca ttcttgtggg ctccatgcca agaagggaag gcatggagag aaaagattta 360
ctgaaagcaa atgtgaaaat cttcaaatcc cagggtgcag c 401

<210> 381
<211> 401
<212> DNA
<213> Homo sapien

<220>
<221> misc_feature
<222> (1)...(401)
<223> n = A,T,C or G

<400> 381
ggggcttcgc tggcagtctg aacggcaagc ttgagcaacg cggtaaaaat attgcttcgg 60
tgggtgacgc ggtacagctg tccaagggcn ttngtaacgg gaatgccgaa gcgtgggaaa 120
aagggagcgg tggcggaaga cggggatgag ctcaggacag agccagaggc caagaagagt 180
aagacggccg caaagaaaaa tgacaaagag gcagcaggag agggcccagc cctgtatgag 240
gacccccag atcagaaaac ctcacccagt ggcaaacctg ccacactcaa gatctgctct 300
tggaatgtgg atgggcttcg agcctggatt aagaagaaag gattagattg ggtaaaggaa 360
gaagccccag atatactgtg ccttcaagag accaaatgtt c 401

<210> 382
<211> 491
<212> DNA
<213> Homo sapien

<400> 382
gagcagcccc cggcggctga aagccggggc agaagtgctg gtctcggtcg ggattccggg 60
cttggtccca ccgaggcggc gactgcggta ggagggaaga ggttttggac gcgctggcct 120
cccgccgctg tgcattgcag cattatttca gttcaaaatg aactatatgc ctggcaccgc 180
cagcctcatc gaggacattg acaaaaagca cttggttctg cttcgagatg gaaggacact 240

tataggcttt ttaagaagca ttgatcaatt tgcaaactta gtgctacatc agactgtgga 300
gcgtattcat gtgggcaaaa aatacggtga tattcctcga gggattttg tggtcagagg 360
agaaaatgtg gtcctactag gagaaataga cttggaaaag gagagtgaca caccccctcca 420
gcaagtatcc attgaagaaa ttctagaaga acaaagggtg gaacagcaga ccaagctgga 480
agcagagaag t 491

<210> 383
<211> 491
<212> DNA
<213> Homo sapien

<400> 383
gagtccatct cagcgcctgg aaaatgcagt gaaaaaacct gaagataaaa aggaagtttt 60
cagacccctc aagcctgctg gcgaagtgga tctgaccgca ctggccaaag agcttcgagc 120
agtggaagat gtacggccac ctcacaaagt aacggactac tcctcatcca gtgaggagtc 180
ggggacgacg gatgaggagg acgacgatgt ggagcaggaa ggggctgacg agtccacctc 240
aggaccagag gacaccagag cagcgtcatc tctgaatttg agcaatggtg aaacggaatc 300
tgtgaaaacc atgattgtcc atgatgatgt agaaagtgag ccggccatga ccccatccaa 360
ggagggcact ctaatcgtcc gccagagtac agttgaccaa aagcgtgcca gccatcatga 420
gagcaatggc tttgccggtc gcattcacct cttgccagat ctcttacagc aaagccattc 480
ctcctccact t 491

<210> 384
<211> 491
<212> DNA
<213> Homo sapien

<400> 384
gagcctaatc tcaggtggtc cacccgagac cccttgagca ccaaccctag tcccccgcgc 60
ggccccttat tcgctccgac aaggtacaaa aaggctctgg acggcggcgt ggtaggagga 120
cgggagcggg ggcgggaagt tccctgaagg agcgagacag ggagggacag ggcagaggag 180
gagaggaagg cgatgcgacg gacaggcgca cccgctcagg ctgactctcg ggggcgaggt 240
cgagccaggg gcggctgccc tgggggcgag gcgacgctgt ctcaacctcc acctcgcggc 300
ggaacccgag gacaggagcc tcagatgaaa gaaacaatca tgaaccagga aaaactcgcc 360
aaactgcagg cacaagtgcg cattggtggg aaaggaactg ctcgcagaaa gaagaaggtg 420
gttcatagaa cagccacagc agatgacaaa aaacttcagt tctccttaaa gaagttaggg 480
gtaaacaata t 491

<210> 385
<211> 483
<212> DNA
<213> Homo sapien

<400> 385
agccgctgcg aagggagccg ccgccatgtc tgcgcatctg caatggatgg tcgtgcggaa 60
ctgctccagt ttcctgatca agaggaataa gcagacctac agcactgagc ccaataactt 120
gaaggcccgc aattccttcc gctacaacgg actgattcac cgcaagactg tgggcgtgga 180
gccggcagcc gacggcaaag gtgtcgtggt ggtcattaag cggagatccg gccagcggaa 240
gcctgccacc tcctatgtgc ggaccaccat caacaagaat gctcgcgcca cgctcagcag 300
catcagacac atgatccgca agaacaagta ccgccccgac ctgcgcatgg cagccatccg 360
cagggccagc gccatcctgc gcagccagaa gcctgtgatg gtgaagagga agcggacccg 420
ccccaccaag agctcctgag ccccctgccc ccagagcaat aaagtcagct ggctttctca 480
cct 483

<210> 386
<211> 491
<212> DNA
<213> Homo sapien

<400> 386
aggtggaagg aaaaaacata aatgaagtta atgcacttct tttcctagcc caaaagtcac 60
tgtgattata tttttttaat gaagtttaga aaaaaagctg ttgtcttctc aattgtaaaa 120
ttagtttcaa aatgctgctt ctcttatcat tagtctagta attgttgaac ttttctgcaa 180
actgcatttt acaaaattga aacttggaag ctgtattaac ttttatagtt aaacattgta 240
ttaaataaac tatactataa taaacagttt ggttttgtat tttttaaatt gtattatcca 300
gccttttaaa aattaaaagc taaataatga aaataaacca attaaaacat acttttactc 360
tcagatatac aggtatttac attatgaaaa aactgaacaa agttttaaca atactgagct 420
ttaagaattt agccagcagg gaaaatttcc aggtttgaga atgttctaat gtaaatattt 480
aatcataata c 491

<210> 387
<211> 491
<212> DNA
<213> Homo sapien

<400> 387
ccacaccacc gtgtcccaag tccagccccc tccctccaag gcatcagcac ctgaaccccc 60
tgcagaagaa gaagtggcaa ctggtacaac ctcagcctct gatgacctgg aagccctggg 120
tacactgagc ctggggacca cagaggagaa ggcagcagct gaggcggctg tgcccaggac 180
cattggggcc gagctgatgg agctggtgcg gagaaacact ggcctgagcc acgaattatg 240
ccgggtggcc atcggcatca tagtgggtca catccaggcc tcggtgccgg ccagctcacc 300
agtcatggag caggtcctcc tctcactcgt agagggcaag gacctcagca tggccctgcc 360
ctcagggcag gtctgccacg accagcagag gctggaggtg atctttgcag acctggctcg 420
ccggaaggac gacgcccagc agcgcagttg ggcactatat gaggatgagg gtgtcatccg 480
ctgctaccta g 491

<210> 388
<211> 491
<212> DNA
<213> Homo sapien

<400> 388
gagactatca aactcctgag ccaacaactt aatatgacta gcttacacaa tagcttttat 60
agtaaagata cctctttacg gactccactt atgactccct aaagcccatg tcgaagcccc 120
catcgctggg tcaatagtac ttgccgcagt actcttgaaa ctaggcggct atggtataat 180
acgcctcaca ctcattctca accccctgac aaaacacata gcctacccct tccttgtact 240
atccctatga ggcataatta taacaagctc catctgccta cgacaaacag acctaaaatc 300
gctcattgca tactcttcaa tcagccacat agccctcgta gtaacagcca ttctcatcca 360
aaccccctga agcttcaccg gcgcagtcat tctcataatc gcccacggac ttacatcctc 420
attactattc tgcctagcaa actcaaacta cgaacgcact cacagtcgca tcataatcct 480
ctctcaagga c 491

<210> 389
<211> 511
<212> DNA
<213> Homo sapien

<220>

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<221> misc_feature
<222> (1)...(511)
<223> n = A,T,C or G

<400> 389
tactgatatc tctttaatac tttcatcatt caagtttgtt canaacatta caagaggcat    60
gaaagaaaaa ataattccat ttttaaaact ctgtctgtcc aaagtataac atatgaaacc   120
atgccattat ctnttaggaa acaaaagcat tcaaaattaa tttggtatta aagttcaaga   180
ttcanactaa cctcaaagta cggcatgtgc agtgtttaag tgcaanaagt attttcattc   240
caattatttt acananatgc tggagtgacg tgtgcaattt gaaatattca aatcctttaa   300
ggnttctgaa ctaagtgttt aaatgaaaac tgaaatgctg catagtttca gtggctttca   360
atttcctgtt tgatctcaga aatatatgga tgatctttgc cgtgagctac ttccatgatt   420
gcaatggcct tcttcagggc tttctcccct gcggctttgt gttccaggcc catgtagagt   480
ctccctagct tcaaccacat ggaggccacg t                                   511

<210> 390
<211> 1984
<212> DNA
<213> Homo sapien

<400> 390
cctggggtta gaggctgggg tgggtggggg gtaaggggc agtccttctc cccttcgacg 60
gcggctccga gtccagcccc ttccttcccg cgctcgctcg cccggccccc agccccctca 120
tgagggtgtc cgtgccgggt ccggcggccg ctgccgcccc cgcagccggc cgcgagccct 180
ccacgcccgg cgggggcagc ggaggcggag gcgccgtcgc tgcagcctca ggcgccgcgg 240
tgccgggctc cgtgcagttg gcgctgagcg tcctgcacgc cctgctctac gccgcgctgt 300
tcgcctttgc ctacctgcag ctgtggcggc tgctcctgta ccgcgagcgg cggctgagtt 360
accagagcct ctgcctcttc ctctgtctcc tgtgggcagc gctcaggacc accctcttct 420
ccgccgcctt ctcgctcagc ggctccctgc ccttgctccg gccgcccgct cacctgcact 480
tcttccccca ctggctgctc tactgcttcc cctcctgtct ccagttctcc acgctctgtc 540
tcctcaacct ctacctggcg gaggttatat gtaaagtcag atgtgccact gaacttgaca 600
gacacaaaat tctactgcat ttgggcttta taatggcaag cctgctcttt ttagtggtga 660
acttgacttg cgcaatgcta gttcatggag atgtcccaga aaatcagttg aagtggactg 720
tgtttgttcg agcattaatt aatgatagcc tgtttattct ttgtgccatc tctttagtgt 780
gttacatatg caaaattaca aaaatgtcat cagctaatgt ctacctcgaa tcaaagggta 840
tgtctctgtg ccagactgtc atcgtgggct ctgtagtcat tcttctgtac tcttccagag 900
cttgttataa tttggtggtg gtcaccatat ctcaggatac attagaaagt ccatttaatt 960
atggctggga taatctttca gataaggctc atgtagaaga cataagtgga gaagagtata 1020
tagtatttgg aatggtcctc tttctgtggg aacatgtgcc agcatggtcg gtggtactgt 1080
ttttccgggc acagagatta aaccagaatt tggcacctgc tggcatgata aatagtcaca 1140
gttatagttc cagagcttac tttttcgaca atccaagacg atatgatagt gatgatgacc 1200
tgccaagact gggaagttca agagaaggaa gtttaccaaa ttcgcaaagt ttgggctggt 1260
atggcaccat gactgggtgt ggcagcagca gttacacagt cactccccac ctgaatggac 1320
ctatgacaga tactgctcct ttgctcttta cttgtagtaa tttagatttg aacaatcatc 1380
atagcttata tgtgacacca caaaactgac agcatcacca agtcatgatt cttgagttgt 1440
ttttcataaa tgtgtatatt caatgtgttt aaattccatc tacataaaca ttccattatc 1500
tgttgcaact gaaaacaaaa tctggaagtg tggctgtgtt tggtaaataa cacagctatt 1560
atttttgacc tcttcatagt aaaatgaagt aaaatggaaa gtttggagta ggagaaaaga 1620
gagattagat cttaaggcac ttgatggcct ccaaaaatcc tgactttgga acatcaaatg 1680
catatgtgca cttttatctt tgttctgagt cactgcagtc cccaaagtca tatgccaatg 1740
ttcacactga aatactgtat tgtacaccaa actggaaggc aattttccta tgaaaatcaa 1800
agccggtata ttcattggta tgctctatac agatatctta ataaaaattt tatagtgtga 1860
acagtgcaca gagttaaggc ataaaaatgt atcattcttt ataaaaatct actgaaaatg 1920
tgtaatcatt gaagacagtt cttttaagca tgattttaaa atagcaactg aaattcaatc 1980
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```
                                                              1984
attt

<210> 391
<211> 429
<212> PRT
<213> Homo sapien

<400> 391
Met Arg Val Ser Val Pro Gly Pro Ala Ala Ala Ala Ala Pro Ala Ala
                5                   10                  15

Gly Arg Glu Pro Ser Thr Pro Gly Gly Gly Ser Gly Gly Gly Gly Ala
            20                  25                  30

Val Ala Ala Ala Ser Gly Ala Ala Val Pro Gly Ser Val Gln Leu Ala
        35                  40                  45

Leu Ser Val Leu His Ala Leu Leu Tyr Ala Ala Leu Phe Ala Phe Ala
    50                  55                  60

Tyr Leu Gln Leu Trp Arg Leu Leu Leu Tyr Arg Glu Arg Arg Leu Ser
65                  70                  75                  80

Tyr Gln Ser Leu Cys Leu Phe Leu Cys Leu Leu Trp Ala Ala Leu Arg
                85                  90                  95

Thr Thr Leu Phe Ser Ala Ala Phe Ser Leu Ser Gly Ser Leu Pro Leu
            100                 105                 110

Leu Arg Pro Pro Ala His Leu His Phe Phe Pro His Trp Leu Leu Tyr
        115                 120                 125

Cys Phe Pro Ser Cys Leu Gln Phe Ser Thr Leu Cys Leu Leu Asn Leu
    130                 135                 140

Tyr Leu Ala Glu Val Ile Cys Lys Val Arg Cys Ala Thr Glu Leu Asp
145                 150                 155                 160

Arg His Lys Ile Leu Leu His Leu Gly Phe Ile Met Ala Ser Leu Leu
                165                 170                 175

Phe Leu Val Val Asn Leu Thr Cys Ala Met Leu Val His Gly Asp Val
            180                 185                 190

Pro Glu Asn Gln Leu Lys Trp Thr Val Phe Val Arg Ala Leu Ile Asn
        195                 200                 205

Asp Ser Leu Phe Ile Leu Cys Ala Ile Ser Leu Val Cys Tyr Ile Cys
    210                 215                 220

Lys Ile Thr Lys Met Ser Ser Ala Asn Val Tyr Leu Glu Ser Lys Gly
225                 230                 235                 240

Met Ser Leu Cys Gln Thr Val Ile Val Gly Ser Val Val Ile Leu Leu
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245 250 255

Tyr Ser Ser Arg Ala Cys Tyr Asn Leu Val Val Val Thr Ile Ser Gln
260 265 270

Asp Thr Leu Glu Ser Pro Phe Asn Tyr Gly Trp Asp Asn Leu Ser Asp
275 280 285

Lys Ala His Val Glu Asp Ile Ser Gly Glu Glu Tyr Ile Val Phe Gly
290 295 300

Met Val Leu Phe Leu Trp Glu His Val Pro Ala Trp Ser Val Val Leu
305 310 315 320

Phe Phe Arg Ala Gln Arg Leu Asn Gln Asn Leu Ala Pro Ala Gly Met
325 330 335

Ile Asn Ser His Ser Tyr Ser Ser Arg Ala Tyr Phe Phe Asp Asn Pro
340 345 350

Arg Arg Tyr Asp Ser Asp Asp Asp Leu Pro Arg Leu Gly Ser Ser Arg
355 360 365

Glu Gly Ser Leu Pro Asn Ser Gln Ser Leu Gly Trp Tyr Gly Thr Met
370 375 380

Thr Gly Cys Gly Ser Ser Ser Tyr Thr Val Thr Pro His Leu Asn Gly
385 390 395 400

Pro Met Thr Asp Thr Ala Pro Leu Leu Phe Thr Cys Ser Asn Leu Asp
405 410 415

Leu Asn Asn His His Ser Leu Tyr Val Thr Pro Gln Asn
420 425

<210> 392
<211> 1584
<212> DNA
<213> Homo sapiens

<400> 392
ggaagactgg agcctttgcg gcggcgctgc ccctcccctg gtccccgcga gctcggaggg 60
cccggctggt gctgcggggg ccccgggagg ttgaaaacta agcatgggga agagctgcaa 120
ggtggtcgtg tgtggccagg cgtctgtggg caaaacttca atcctggagc agcttctgta 180
tgggaaccat gtagtgggtt cggagatgat cgagacgcag gaggacatct acgtgggctc 240
cattgagaca gaccgggggg tgcgagagca ggtgcgtttc tatgacaccc gggggctccg 300
agatggggcc gaactgcccc gacactgctt ctcttgcact gatggctacg tcctggtcta 360
tagcacagat agcagagagt cttttcagcg tgtggagctg ctcaagaagg agattgacaa 420
atccaaggac aagaaggagg tcaccatcgt ggtccttggc aacaagtgtg acttacagga 480
gcagcggcgt gtagacccag atgtggctca gcactgggcc aagtcagaga aggtgaagct 540
gtgggaggtg tcagtggcgg accggcgctc cctcctggag ccctttgtct acttggccag 600
caagatgacg caaccccaga gcaagtctgc cttccccctc agccggaaga acaagggcag 660
cggctccttg gatggctgaa gagctgccgt tcctctttca cgatcccagc cccatttcag 720

tgtctggggc tctggtagat gtgttgaggg caaagtagag gacaagctgt ctttcccagt 780
cagccaggga gctccccgcc aggccacgcc ccagccactt tgctccctct cacctctggg 840
aagtgcaaat actcttggtt gacatcccct tcctcagccc tcccagccta ctccccatcc 900
cagcttttag aggatctgct ccactgtctc ctggggcagt tgtgggtcac tgtcccttcc 960
agctgcccca gacaggaagc agagtcacca cgcagcagtg tcccttcttg ggtctgagtt 1020
cctattatag gtaggggccc caccctctgg gcttcccatc agcgacacac acacacttat 1080
ggcaccagcc tggactccag aaaaagggtg tccaggtatt gtgtgtatgc atttagttgt 1140
gcacacacaa atatgctcct atactggcat taggcgtctc ctcatccctc accctgacct 1200
ttctcctgtc cttttcttgg ctggaagaag ttggcctcct gggagtgtag ttttctgttt 1260
taaatccccc acccctggct gggctcagtg gctcacccct gtaatcccag cactttggga 1320
ggccaaggcg ggtcgattac ttgaggtcag gagttcacga ccagcctggc caacattgtg 1380
aaaccccatc tctgccaaaa atacaaaagt tagccgggcg tagtggcaca tgcctgtaat 1440
cccagctacc cggggaggct gaggcaggag aattgcttga actcagaagg cggaggctgc 1500
agtgagccga gatcgtgcca ctgcactcca gcctggtcaa cagagcaaga ctccatctcg 1560
aaaaaaaaaa aaaaaaaact cgag 1584

<210> 393
<211> 191
<212> PRT
<213> Homo sapiens

<400> 393
Met Gly Lys Ser Cys Lys Val Val Val Cys Gly Gln Ala Ser Val Gly
1 5 10 15

Lys Thr Ser Ile Leu Glu Gln Leu Leu Tyr Gly Asn His Val Val Gly
20 25 30

Ser Glu Met Ile Glu Thr Gln Glu Asp Ile Tyr Val Gly Ser Ile Glu
35 40 45

Thr Asp Arg Gly Val Arg Glu Gln Val Arg Phe Tyr Asp Thr Arg Gly
50 55 60

Leu Arg Asp Gly Ala Glu Leu Pro Arg His Cys Phe Ser Cys Thr Asp
65 70 75 80

Gly Tyr Val Leu Val Tyr Ser Thr Asp Ser Arg Glu Ser Phe Gln Arg
85 90 95

Val Glu Leu Leu Lys Lys Glu Ile Asp Lys Ser Lys Asp Lys Lys Glu
100 105 110

Val Thr Ile Val Val Leu Gly Asn Lys Cys Asp Leu Gln Glu Gln Arg
115 120 125

Arg Val Asp Pro Asp Val Ala Gln His Trp Ala Lys Ser Glu Lys Val
130 135 140

Lys Leu Trp Glu Val Ser Val Ala Asp Arg Arg Ser Leu Leu Glu Pro
145 150 155 160

Phe Val Tyr Leu Ala Ser Lys Met Thr Gln Pro Gln Ser Lys Ser Ala
165 170 175

Phe Pro Leu Ser Arg Lys Asn Lys Gly Ser Gly Ser Leu Asp Gly
            180   185   190

<210> 394
<211> 1937
<212> DNA
<213> Homo sapiens

<400> 394
ccggttcccc cagctctggg tacccggctc tgcatcgcgt cgccatgatg ggccatcgtc 60
cagtgctcgt gctcagccag aacacaaagc gtgaatccgg aagaaaagtt caatctggaa 120
acatcaatgc tgccaagact attgcagata tcatccgaac atgtttggga cccaagtcca 180
tgatgaagat gcttttggac ccaatgggag gcattgtgat gaccaatgat ggcaatgcca 240
ttcttcgaga gattcaagtc cagcatccag cggccaagtc catgatcgaa attagccgga 300
cccaggatga agaggttgga gatgggacca catcagtaat tattcttgca ggggaaatgc 360
tgtctgtagc tgagcacttc ctggagcagc agatgcaccc aacagtggtg atcagtgctt 420
accgcaaggc attggatgat atgatcagca ccctaaagaa aataagtatc ccagtcgaca 480
tcagtgacag tgatatgatg ctgaacatca tcaacagctc tattactacc aaagccatca 540
gtcggtggtc atctttggct tgcaacattg ccctggatgc tgtcaagatg gtacagtttg 600
aggagaatgg tcggaaagag attgacataa aaaaatatgc aagagtggaa aagatacctg 660
gaggcatcat tgaagactcc tgtgtcttgc gtggagtcat gattaacaag gatgtgaccc 720
atccacgtat gcggcgctat atcaagaacc ctcgcattgt gctgctggat tcttctctgg 780
aatacaagaa aggagaaagc cagactgaca ttgagattac acgagaggag gacttcaccc 840
gaattctcca gatggaggaa gagtacatcc agcagctctg tgaggacatt atccaactga 900
agcccgatgt ggtcatcact gaaaagggca tctcagattt agctcagcac taccttatgc 960
gggccaatat cacagccatc cgcagagtcc ggaagacaga caataatcgc attgctagag 1020
cctgtggggc ccggatagtc agccgaccag aggaactgag agaagatgat gttggaacag 1080
gagcaggcct gttggaaatc aagaaaattg gagatgaata ctttactttc atcactgact 1140
gcaaagaccc caaggcctgc accattctcc tccggggggc tagcaaagag attctctcgg 1200
aagtagaacg caacctccag gatgccatgc aagtgtgtcg caatgttctc ctggaccctc 1260
agctggtgcc agggggtggg gcctccgaga tggctgtggc ccatgccttg acagaaaaat 1320
ccaaggccat gactggtgtg gaacaatggc catacagggc tgttgcccag gccctagagg 1380
tcattcctcg taccctgatc cagaactgtg ggccagcac catccgtcta cttacctccc 1440
ttcgggccaa gcacacccag gagaactgtg agacctgggg tgtaaatggt gagacgggta 1500
ctttggtgga catgaaggaa ctgggcatat gggagccatt ggctgtgaag ctgcagactt 1560
ataagacagc agtggagacg gcagttctgc tactgcgaat tgatgacatc gtttcaggcc 1620
acaaaaagaa aggcgatgac cagagccggc aaggcggggc tcctgatgct ggccaggagt 1680
gagtgctagg caaggctact tcaatgcaca gaaccagcag agtctcccct tttcctgagc 1740
cagagtgcca ggaacactgt ggacgtcttt gttcagaagg gatcaggttg gggggcagcc 1800
cccagtccct ttctgtccca gctcagtttt ccaaaagaca ctgacatgta attcttctct 1860
attgtaaggt ttccatttag tttgcttccg atgattaaat ctaagtcatt tgaaaaaaaa 1920
aaaaaaaaaa actcgag 1937

<210> 395
<211> 1675
<212> DNA
<213> Homo sapiens

<400> 395
gcgcgaatcg cggtcgcgag ccatggagga ggaggcatcg tccccggggc tgggctgcag 60
caagccgcac ctggagaagc tgaccctggg catcacgcgc atcctagaat cttccccagg 120
tgtgactgag gtgaccatca tagaaaagcc tcctgctgaa cgtcatatga tttcttcctg 180
ggaacaaaag aataactgtg tgatgcctga agatgtgaag aacttttacc tgatgaccaa 240

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tggcttccac atgacatgga gtgtgaagct ggatgagcac atcattccac tgggaagcat 300
ggcaattaac agcatctcaa aactgactca gctcacccag tcttccatgt attcacttcc 360
taatgcaccc actctggcag acctggagga cgatacacat gaagccagtg atgatcagcc 420
agagaagcct cactttgact ctcgcagtgt gatatttgag ctggattcat gcaatggcag 480
tgggaaagtt tgccttgtct acaaaagtgg gaaaccagca ttagcagaag acactgagat 540
ctggttcctg gacagagcgt tatactggca ttttctcaca gacaccttta ctgcctatta 600
ccgcctgctc atcacccacc tgggcctgcc ccagtggcaa tatgccttca ccagctatgg 660
cattagccca caggccaagc aatggttcag catgtataaa cctatcacct acaacacaaa 720
cctgctcaca gaagagaccg actcctttgt gaataagcta gatcccagca aagtgtttaa 780
gagcaagaac aagatcgtaa tcccaaaaaa gaaagggcct gtgcagcctg caggtggcca 840
gaaagggccc tcaggaccct ccggtccctc cacttcctcc acttctaaat cctcctctgg 900
ctctggaaac cccacccgga agtgagcacc cctccctcca actccctacc agctccagag 960
tggtggtttc catgcacaga tggccctagg ggtgacctcc agttttgcgt gtggaccgta 1020
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aatttggaat cttgtgtaag tgcccaaata agtctgagtg ctttcctctt cttcaacact 1200
caaccctcaa tcccttagca ctgattgatt agagaggtcc cccaaagaaa ccactggttt 1260
tgacccatga agcattagaa ctgcattgtt cattcaggag ccactagtca catatgacta 1320
tttaaattta aagtaaattg tatgaaaaat tcatttcttc aattgcatta gccacatttt 1380
gagtattcat gtggctggta gattctgtat tagcacaaag atatggaaca tttccatcac 1440
cacagaaagt tctgttggac agcactgcat tagaatattt tcatactgct cttcctcaat 1500
taatttttgt tgttaatgtt gatgtcttca ttggatgggt cataatgttc catgaaacct 1560
ctcaagtaca caattgtatg ttctttgtat cccttaccac aaatatctcg ctctgctcat 1620
ttcttttgca gcttcctata aagtttgtct tcctcatcaa aaaaaaaaaa aaaaa      1675

<210> 396
<211> 559
<212> PRT
<213> Homo sapiens

<400> 396
Gly Ser Pro Ser Ser Gly Tyr Pro Ala Leu His Arg Val Ala Met Met
                5                   10                  15

Gly His Arg Pro Val Leu Val Leu Ser Gln Asn Thr Lys Arg Glu Ser
            20                  25                  30

Gly Arg Lys Val Gln Ser Gly Asn Ile Asn Ala Ala Lys Thr Ile Ala
        35                  40                  45

Asp Ile Ile Arg Thr Cys Leu Gly Pro Lys Ser Met Met Lys Met Leu
    50                  55                  60

Leu Asp Pro Met Gly Gly Ile Val Met Thr Asn Asp Gly Asn Ala Ile
65                  70                  75                  80

Leu Arg Glu Ile Gln Val Gln His Pro Ala Ala Lys Ser Met Ile Glu
                85                  90                  95

Ile Ser Arg Thr Gln Asp Glu Glu Val Gly Asp Gly Thr Thr Ser Val
            100                 105                 110

Ile Ile Leu Ala Gly Glu Met Leu Ser Val Ala Glu His Phe Leu Glu
        115                 120                 125
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Gln Gln Met His Pro Thr Val Val Ile Ser Ala Tyr Arg Lys Ala Leu
    130                 135                 140

Asp Asp Met Ile Ser Thr Leu Lys Lys Ile Ser Ile Pro Val Asp Ile
145                 150                 155                 160

Ser Asp Ser Asp Met Met Leu Asn Ile Ile Asn Ser Ser Ile Thr Thr
                165                 170                 175

Lys Ala Ile Ser Arg Trp Ser Ser Leu Ala Cys Asn Ile Ala Leu Asp
            180                 185                 190

Ala Val Lys Met Val Gln Phe Glu Glu Asn Gly Arg Lys Glu Ile Asp
        195                 200                 205

Ile Lys Lys Tyr Ala Arg Val Glu Lys Ile Pro Gly Gly Ile Ile Glu
    210                 215                 220

Asp Ser Cys Val Leu Arg Gly Val Met Ile Asn Lys Asp Val Thr His
225                 230                 235                 240

Pro Arg Met Arg Arg Tyr Ile Lys Asn Pro Arg Ile Val Leu Leu Asp
                245                 250                 255

Ser Ser Leu Glu Tyr Lys Lys Gly Glu Ser Gln Thr Asp Ile Glu Ile
            260                 265                 270

Thr Arg Glu Glu Asp Phe Thr Arg Ile Leu Gln Met Glu Glu Glu Tyr
        275                 280                 285

Ile Gln Gln Leu Cys Glu Asp Ile Ile Gln Leu Lys Pro Asp Val Val
    290                 295                 300

Ile Thr Glu Lys Gly Ile Ser Asp Leu Ala Gln His Tyr Leu Met Arg
305                 310                 315                 320

Ala Asn Ile Thr Ala Ile Arg Arg Val Arg Lys Thr Asp Asn Asn Arg
                325                 330                 335

Ile Ala Arg Ala Cys Gly Ala Arg Ile Val Ser Arg Pro Glu Glu Leu
            340                 345                 350

Arg Glu Asp Asp Val Gly Thr Gly Ala Gly Leu Leu Glu Ile Lys Lys
        355                 360                 365

Ile Gly Asp Glu Tyr Phe Thr Phe Ile Thr Asp Cys Lys Asp Pro Lys
    370                 375                 380

Ala Cys Thr Ile Leu Leu Arg Gly Ala Ser Lys Glu Ile Leu Ser Glu
385                 390                 395                 400

Val Glu Arg Asn Leu Gln Asp Ala Met Gln Val Cys Arg Asn Val Leu
                405                 410                 415
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Leu Asp Pro Gln Leu Val Pro Gly Gly Gly Ala Ser Glu Met Ala Val
420 425 430

Ala His Ala Leu Thr Glu Lys Ser Lys Ala Met Thr Gly Val Glu Gln
435 440 445

Trp Pro Tyr Arg Ala Val Ala Gln Ala Leu Glu Val Ile Pro Arg Thr
450 455 460

Leu Ile Gln Asn Cys Gly Ala Ser Thr Ile Arg Leu Leu Thr Ser Leu
465 470 475 480

Arg Ala Lys His Thr Gln Glu Asn Cys Glu Thr Trp Gly Val Asn Gly
485 490 495

Glu Thr Gly Thr Leu Val Asp Met Lys Glu Leu Gly Ile Trp Glu Pro
500 505 510

Leu Ala Val Lys Leu Gln Thr Tyr Lys Thr Ala Val Glu Thr Ala Val
515 520 525

Leu Leu Leu Arg Ile Asp Asp Ile Val Ser Gly His Lys Lys Lys Gly
530 535 540

Asp Asp Gln Ser Arg Gln Gly Gly Ala Pro Asp Ala Gly Gln Glu
545 550 555

<210> 397
<211> 307
<212> PRT
<213> Homo sapiens

<400> 397
Arg Glu Ser Arg Ser Arg Ala Met Glu Glu Glu Ala Ser Ser Pro Gly
5 10 15

Leu Gly Cys Ser Lys Pro His Leu Glu Lys Leu Thr Leu Gly Ile Thr
20 25 30

Arg Ile Leu Glu Ser Ser Pro Gly Val Thr Glu Val Thr Ile Ile Glu
35 40 45

Lys Pro Pro Ala Glu Arg His Met Ile Ser Ser Trp Glu Gln Lys Asn
50 55 60

Asn Cys Val Met Pro Glu Asp Val Lys Asn Phe Tyr Leu Met Thr Asn
65 70 75 80

Gly Phe His Met Thr Trp Ser Val Lys Leu Asp Glu His Ile Ile Pro
85 90 95

Leu Gly Ser Met Ala Ile Asn Ser Ile Ser Lys Leu Thr Gln Leu Thr

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            100                 105                 110

Gln Ser Ser Met Tyr Ser Leu Pro Asn Ala Pro Thr Leu Ala Asp Leu
        115                 120                 125

Glu Asp Asp Thr His Glu Ala Ser Asp Asp Gln Pro Glu Lys Pro His
    130                 135                 140

Phe Asp Ser Arg Ser Val Ile Phe Glu Leu Asp Ser Cys Asn Gly Ser
145                 150                 155                 160

Gly Lys Val Cys Leu Val Tyr Lys Ser Gly Lys Pro Ala Leu Ala Glu
                165                 170                 175

Asp Thr Glu Ile Trp Phe Leu Asp Arg Ala Leu Tyr Trp His Phe Leu
            180                 185                 190

Thr Asp Thr Phe Thr Ala Tyr Tyr Arg Leu Leu Ile Thr His Leu Gly
        195                 200                 205

Leu Pro Gln Trp Gln Tyr Ala Phe Thr Ser Tyr Gly Ile Ser Pro Gln
    210                 215                 220

Ala Lys Gln Trp Phe Ser Met Tyr Lys Pro Ile Thr Tyr Asn Thr Asn
225                 230                 235                 240

Leu Leu Thr Glu Glu Thr Asp Ser Phe Val Asn Lys Leu Asp Pro Ser
                245                 250                 255

Lys Val Phe Lys Ser Lys Asn Lys Ile Val Ile Pro Lys Lys Lys Gly
            260                 265                 270

Pro Val Gln Pro Ala Gly Gly Gln Lys Gly Pro Ser Gly Pro Ser Gly
        275                 280                 285

Pro Ser Thr Ser Ser Thr Ser Lys Ser Ser Ser Gly Ser Gly Asn Pro
    290                 295                 300

Thr Arg Lys
305



<210> 398
<211> 416
<212> DNA
<213> Homo sapiens

<400> 398
agaattcggc acgaggattg cctatctcca gtgcaacaac catcaagtgt gctgaaagtc 60
ttcagccggt tgctgcagca gtggaagaaa gggctacagg tccagtcttg ataagcaccg 120
ccgactttga ggggcctatg cccagtgcgc ccccagaagc tgaaagtcct cttgcctcaa 180
ccagcaagga ggagaaggat gaatgtgctc tcatttccac tagcatagca gaagaatgtg 240
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09854133.051101

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aggcttctgt ttccggtgta gttgttgaaa gtgaaaatga gcgagctggc acagtcatgg 300
aagaaaaaga cgggagtggc atcatctcta cgagctcggt ggaagactgt gagggcccag 360
tgtccagtgc tgtccctcaa gaggaaggcg acccctcagt cacaccagcg gaagag     416

<210> 399
<211> 259
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(259)
<223> n = A,T,C or G

<400> 399
caaagaattc ggcacgaggg ggcgacctgc attcggacgt caccgaggcc atgctgtacg 60
aaaagttcag ccccgcgggg cctgtgctgt ncatccgggt ctgccgngat atgatcaccc 120
gccgctccct gggctatgcc tacgncaact tccancaacc ggccgacgct gatcgggctt 180
tggacaccat gaactttgat gtgattnagg gaaanccaat ccttatcntg tnnnaatcat 240
aggnatcctt ctttgacaa                                              259

<210> 400
<211> 410
<212> DNA
<213> Homo sapiens

<400> 400
ggcacgaggg gagagcggac cccagagagc cctgagcagc cccaccgccg ccgccggcct 60
agttaccatc acaccccggg aggagccgca gctgccgcag ccggccccag tcaccatcac 120
cgcaaccatg agcagcgagg ccgagaccca gcagccgccc gccgcccccc cccgccgccc 180
ccgccctcag cgccgccgac accaagcccg gcactacggg cagcggcgca gggagcggtg 240
gcccgggcgg cctcacatcg gcggcgcctg ccggcgggga caagaaggtc atcgcaacga 300
aggttttggg aacagtaaaa tggttcaatg taaggaacgg atatggtttc atcaacagga 360
atgacaccaa ggaagatgta tttgtacacc agactgccat aaagaagaat             410

<210> 401
<211> 433
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(433)
<223> n = A,T,C or G

<400> 401
ggnacgagga atcatggcgg ctgcgctgtt cgtgctgctg ggattcgcgc tgctgggcac 60
ccacggagcc tccggggctg ccggcacagt cttcactacc gtagaagacc ttggctccaa 120
gatactcctc acctgctcct tgaatgacag cgccacagag gtcacagggc accgctggct 180
gaagggggc gtggtgctga aggaggacgc gctgcccggc cagaaaacgg agttcaaggt 240
ggactccgac gaccagtggg gagagtactc ctgcgtcttc ctccccgagc ccatgggcac 300
ggccaacatc cagctccacg ggcctcccag agtgaaggcc gtgaagtcgt cagaacacat 360
caacgagggg gagacggcca tgctggtctg caagtcagag tccgtgccac ctgtcactga 420
ctgggcctgg tac                                                    433
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<210> 402
<211> 434
<212> DNA
<213> Homo sapiens

<400> 402
ggcacgaggc tcggactgag caggactttc cttatcccag ttgattgtgc agaatacact 60
gcctgtcgct tgtcttctat tcaccatggc ttcttctgat atccaggtga aagaactgga 120
gaagcgtgcc tcaggccagg cttttgagct gattctcagc cctcggtcaa aaggatctgt 180
tccagaattc cccctttccc ctccaaagaa gaaggatctt tccctggagg aaattcagaa 240
gaaattagaa gctgcagaag aaagacgcaa gtcccatgaa gctgaggtct tgaagcagct 300
ggctgagaaa cgagagcacg agaaagaagt gcttcagaag gcaatagaag agaacaacaa 360
cttcagtaaa atggcagaag agaaactgac ccacaaaatg gaagctaata aagagaaccg 420
agaggcacaa atgg 434

<210> 403
<211> 435
<212> DNA
<213> Homo sapiens

<400> 403
ggcacgagga actgctgttg ccattcaaac cattgaggag catcctgcat cttttgactg 60
gagctctttt aagccaatgg gatttgaagt atcatttctg aagtttcttg aggagtctgc 120
agtgaagcag aagaaaaata ctgacaaaga ccatccgaat actggaaaca aaaaaggatc 180
ccattcaaat tcaagaaaaa atattgataa gactgctgtg actagtggaa atcatgtatg 240
tccttgtaaa gaaagcgaaa cgtttgtaca gtttgccaat ccatcacagc ttcagtgcag 300
tgataatgta aaaattgttt tagacaagaa tcttaaagat tgcactgagc ttgtcttaaa 360
gcaacttcag gaaatgaaac ctaccgtcag tctgaaaaaa cttgaagtac attcaaatga 420
tccagatatg tctgt 435

<210> 404
<211> 416
<212> DNA
<213> Homo sapiens

<400> 404
aaagaattcg gcacgaggcg ccgctccgcc acgaccaccg ccgcctcctg ccctgcagcc 60
accgccaccg cctgtgtcgc cgccgcctcg ggaccggctg tatgattagg ccacaatctt 120
caatgagtaa acatattcct caattctgtg gtgttcttgg tcacacattt atggagtttc 180
tgaagggcag tggagattac tgccaggcac agcacgacct ctatgcagac aagtgaactg 240
tagaaactga ttactgctcc accaagaagc ccccataaga gtggttatcc tggacacaga 300
agtgttgaat tgaaatccac agagcatttt acaagagttc tgacctggat ggggtaaacc 360
tcagtgcact tcttttctgt tggcctcagt attactggat tgaagaattg ctgctt 416

<210> 405
<211> 435
<212> DNA
<213> Homo sapiens

<400> 405
ggcacgaggg ctgccggagg gtcgttttaa agggcccgcg cgttgccgcc ccctcggccc 60
gccatgctgc tatccgtgcc gctgctgctc ggcctcctcg gcctggccgt cgccgagcct 120
gccgtctact tcaaggagca gtttctggac ggagacgggt ggacttcccg ctggatcgaa 180

tccaaacaca agtcagattt tggcaaattc gttctcagtt ccggcaagtt ctacggtgac 240
gaggagaaag ataaaggttt gcagacaagc caggatgcac gcttttatgc tctgtcggcc 300
agtttcgagc ctttcagcaa caaaggccag acgctggtgg tgcagttcac ggtgaaacat 360
gagcagaaca tcgactgtgg gggcggctat gtgaagctgt ttcctaatag tttggaccag 420
acagacatgc acgga 435

<210> 406
<211> 424
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(424)
<223> n = A,T,C or G

<400> 406
gcccaaaccc actccacctt actaccagac aaccttagcc aaaccattta cccaaataaa 60
gtataggcga tagaaattga aacctggcgc aatagatata gtaccgcaag ggaaagatga 120
aaaattataa ccaagcataa tatagcaagg actaacccct ataccttctg cataatgaat 180
taactagaaa taactttgca aggagagcca aagctaagac ccccgaaacc agacgagcta 240
cctaagaaca gctaaaagag cacacccgtc tatgtagcaa aatagtggga agatttatag 300
gtagaggcga caaacctacc gagcctggtg atagctggtt gtccaagata gaatcttagt 360
tcaactttaa atttgcccac agaaccctct aaatcccctt gnaaatttaa ctgntagtcc 420
aaag 424

<210> 407
<211> 423
<212> DNA
<213> Homo sapiens

<400> 407
gctcctaccg gcgcacgtgg tgccgccgct gctgcctccc gctcgccctg aacccagtgc 60
ctgcagccat ggctcccggc cagctcgcct tatttagtgt ctctgacaaa accggccttg 120
tggaatttgc aagaaacctg accgctcttg gtttgaatct ggtcgcttcc ggagggactg 180
caaaagctct cagggatgct ggtctggcag tcagagatgt ctctgagttg acgggatttc 240
ctgaaatgtt gggggacgt gtgaaaactt tgcatcctgc agtccatgct ggaatcctag 300
ctcgtaatat tccagaagat aatgctgaca tggccagact tgatttcaat cttataagag 360
ttgttgcctg caatctctat ccctttgtaa agacagtggc ttctccaggt gtaagtgttg 420
agg 423

<210> 408
<211> 424
<212> DNA
<213> Homo sapiens

<400> 408
gaaaaaaaat agcttactga attctataag atgtgtggga atctcaccta tcaaaaatag 60
gtaaaaagag cctccaaacc tgctttgatt ttattcacct attcttttag gccaggaact 120
aatttacctc tcactatcct gttccctctt gctatcttgt ggagtctcta aagacaaagg 180
tataaagagc ttttggtagg tgaattaata atcaactaga tggcatttcc aaatgggatt 240
gcacatactg tggggcaagt cccaagtgaa cttcaaagtg agacgtttat ttgagtaatc 300
cttccagatt aacaataatc ataatagcag ttaccacttc ctgagtactt tctatatgcc 360
atgtattgag cttgctcact tctttatgtg gattcttatt taatcttaat accaagatga 420

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                                                                 424
ggtg

<210> 409
<211> 398
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(398)
<223> n = A,T,C or G

<400> 409
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cgcctcctaa tccctagcca ctatgcgtga gtgcatctcc atccacgttg gccaggctgg 120
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<210> 410
<211> 423
<212> DNA
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<210> 411
<211> 424
<212> DNA
<213> Homo sapiens

<220>
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<223> n = A,T,C or G

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aaga

<210> 412
<211> 430
<212> DNA
<213> Homo sapiens

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taggcggcgt                                                        430

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<211> 429
<212> DNA
<213> Homo sapiens

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<210> 414
<211> 429
<212> DNA
<213> Homo sapiens

<400> 414
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<210> 415
<211> 398
<212> DNA
<213> Homo sapiens

<220>
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<210> 416
<211> 269
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(269)
<223> n = A,T,C or G

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nggtntnacn nnccgtncac gccttgntt                                   269

<210> 417
<211> 408
<212> DNA
<213> Homo sapiens

<400> 417
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<210> 418
<211> 402
<212> DNA
<213> Homo sapiens

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<210> 419
<211> 406
<212> DNA
<213> Homo sapiens

<400> 419
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<210> 420
<211> 371
<212> DNA
<213> Homo sapiens

<400> 420
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<210> 421
<211> 51
<212> PRT
<213> Homo sapiens

<400> 421
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Asn Lys Ile Arg Tyr Asn Ser Lys Arg Arg His Trp Arg Arg Thr Lys
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Leu Gly Leu
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<211> 12308

<212> DNA
<213> Homo sapiens

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Thr Lys Val Val Leu Ser Lys Gly Trp Arg Cys Leu Glu Cys Thr Val
    50                  55                  60

Cys Glu Ala Cys Gly Lys Ala Thr Asp Pro Gly Arg Leu Leu Leu Cys
65                  70                  75                  80

Asp Asp Cys Asp Ile Ser Tyr His Thr Tyr Cys Leu Asp Pro Pro Leu
                85                  90                  95

Gln Thr Val Pro Lys Gly Gly Trp Lys Cys Lys Trp Cys Val Trp Cys
            100                 105                 110

Arg His Cys Gly Ala Thr Ser Ala Gly Leu Arg Cys Glu Trp Gln Asn
        115                 120                 125

Asn Tyr Thr Gln Cys Ala Pro Cys Ala Ser Leu Ser Ser Cys Pro Val
    130                 135                 140

Cys Tyr Arg Asn Tyr Arg Glu Glu Asp Leu Ile Leu Gln Cys Arg Gln
145                 150                 155                 160

Cys Asp Arg Trp Met His Ala Val Cys Gln Asn Leu Asn Thr Glu Glu
                165                 170                 175

Glu Val Glu Asn Val Ala Asp Ile Gly Phe Asp Cys Ser Met Cys Arg
            180                 185                 190

Pro Tyr Met Pro Ala Ser Asn Val Pro Ser Ser Asp Cys Cys Glu Ser
        195                 200                 205

Ser Leu Val Ala Gln Ile Val Thr Lys Val Lys Glu Leu Asp Pro Pro
    210                 215                 220

Lys Thr Tyr Thr Gln Asp Gly Val Cys Leu Thr Glu Ser Gly Met Thr
225                 230                 235                 240

Gln Leu Gln Ser Leu Thr Val Thr Val Pro Arg Arg Lys Arg Ser Lys
                245                 250                 255

Pro Lys Leu Lys Leu Lys Ile Ile Asn Gln Asn Ser Val Ala Val Leu
            260                 265                 270

Gln Thr Pro Pro Asp Ile Gln Ser Glu His Ser Arg Asp Gly Glu Met
        275                 280                 285

Asp Asp Ser Arg Glu Gly Glu Leu Met Asp Cys Asp Gly Lys Ser Glu
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Gly Thr Asp Gly Val Lys Lys Arg Lys Arg Lys Pro Tyr Arg Pro Gly
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Ile Gly Gly Phe Met Val Arg Gln Arg Ser Arg Thr Gly Gln Gly Lys
340 345 350

Thr Lys Arg Ser Val Ile Arg Lys Asp Ser Ser Gly Ser Ile Ser Glu
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Gln Leu Pro Cys Arg Asp Asp Gly Trp Ser Glu Gln Leu Pro Asp Thr
370 375 380

Leu Val Asp Glu Ser Val Ser Val Thr Glu Ser Thr Glu Lys Ile Lys
385 390 395 400

Lys Arg Tyr Arg Lys Arg Lys Asn Lys Leu Glu Glu Thr Phe Pro Ala
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Tyr Leu Gln Glu Ala Phe Phe Gly Lys Asp Leu Leu Asp Thr Ser Arg
420 425 430

Gln Ser Lys Ile Ser Leu Asp Asn Leu Ser Glu Asp Gly Ala Gln Leu
435 440 445

Leu Tyr Lys Thr Asn Met Asn Thr Gly Phe Leu Asp Pro Ser Leu Asp
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Pro Leu Leu Ser Ser Ser Ser Ala Pro Thr Lys Ser Gly Thr His Gly
465 470 475 480

Pro Ala Asp Asp Pro Leu Ala Asp Ile Ser Glu Val Leu Asn Thr Asp
485 490 495

Asp Asp Ile Leu Gly Ile Ile Ser Asp Asp Leu Ala Lys Ser Val Asp
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His Ser Asp Ile Gly Pro Val Thr Asp Asp Pro Ser Ser Leu Pro Gln
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Pro Asn Val Asn Gln Ser Ser Arg Pro Leu Ser Glu Glu Gln Leu Asp
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Gly Ile Leu Ser Pro Glu Leu Asp Lys Met Val Thr Asp Gly Ala Ile
545 550 555 560

Leu Gly Lys Leu Tyr Lys Ile Pro Glu Leu Gly Gly Lys Asp Val Glu
565 570 575

Asp Leu Phe Thr Ala Val Leu Ser Pro Ala Asn Thr Gln Pro Thr Pro
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Leu Pro Gln Pro Pro Pro Pro Thr Gln Leu Leu Pro Ile His Asn Gln
        595                 600                 605

Asp Ala Phe Ser Arg Met Pro Leu Met Asn Gly Leu Ile Gly Ser Ser
    610                 615                 620

Pro His Leu Pro His Asn Ser Leu Pro Pro Gly Ser Gly Leu Gly Thr
625                 630                 635                 640

Phe Ser Ala Ile Ala Gln Ser Ser Tyr Pro Asp Ala Arg Asp Lys Asn
                645                 650                 655

Ser Ala Phe Asn Pro Met Ala Ser Asp Pro Asn Asn Ser Trp Thr Ser
            660                 665                 670

Ser Ala Pro Thr Val Glu Gly Glu Asn Asp Thr Met Ser Asn Ala Gln
        675                 680                 685

Arg Ser Thr Leu Lys Trp Glu Lys Glu Glu Ala Leu Gly Glu Met Ala
    690                 695                 700

Thr Val Ala Pro Val Leu Tyr Thr Asn Ile Asn Phe Pro Asn Leu Lys
705                 710                 715                 720

Glu Glu Phe Pro Asp Trp Thr Thr Arg Val Lys Gln Ile Ala Lys Leu
                725                 730                 735

Trp Arg Lys Ala Ser Ser Gln Glu Arg Ala Pro Tyr Val Gln Lys Ala
            740                 745                 750

Arg Asp Asn Arg Ala Ala Leu Arg Ile Asn Lys Val Gln Met Ser Asn
        755                 760                 765

Asp Ser Met Lys Arg Gln Gln Gln Gln Asp Ser Ile Asp Pro Ser Ser
    770                 775                 780

Arg Ile Asp Ser Glu Leu Phe Lys Asp Pro Leu Lys Gln Arg Glu Ser
785                 790                 795                 800

Glu His Glu Gln Glu Trp Lys Phe Arg Gln Gln Met Arg Gln Lys Ser
                805                 810                 815

Lys Gln Gln Ala Lys Ile Glu Ala Thr Gln Lys Leu Glu Gln Val Lys
            820                 825                 830

Asn Glu Gln Gln Gln Gln Gln Gln Gln Gln Phe Gly Ser Gln His Leu
        835                 840                 845

Leu Val Gln Ser Gly Ser Asp Thr Pro Ser Ser Gly Ile Gln Ser Pro
    850                 855                 860

Leu Thr Pro Gln Pro Gly Asn Gly Asn Met Ser Pro Ala Gln Ser Phe
865                 870                 875                 880
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His Lys Glu Leu Phe Thr Lys Gln Pro Pro Ser Thr Pro Thr Ser Thr
                885                 890                 895

Ser Ser Asp Asp Val Phe Val Lys Pro Gln Ala Pro Pro Pro Pro Pro
            900                 905                 910

Ala Pro Ser Arg Ile Pro Ile Gln Asp Ser Leu Ser Gln Ala Gln Thr
        915                 920                 925

Ser Gln Pro Pro Ser Pro Gln Val Phe Ser Pro Gly Ser Ser Asn Ser
    930                 935                 940

Arg Pro Pro Ser Pro Met Asp Pro Tyr Ala Lys Met Val Gly Thr Pro
945                 950                 955                 960

Arg Pro Pro Pro Val Gly His Ser Phe Ser Arg Arg Asn Ser Ala Ala
                965                 970                 975

Pro Val Glu Asn Cys Thr Pro Leu Ser Ser Val Ser Arg Pro Leu Gln
            980                 985                 990

Met Asn Glu Thr Thr Ala Asn Arg Pro Ser Pro Val Arg Asp Leu Cys
        995                 1000                1005

Ser Ser Ser Thr Thr Asn Asn Asp Pro Tyr Ala Lys Pro Pro Asp Thr
    1010                1015                1020

Pro Arg Pro Val Met Thr Asp Gln Phe Pro Lys Ser Leu Gly Leu Ser
1025                1030                1035                1040

Arg Ser Pro Val Val Ser Glu Gln Thr Ala Lys Gly Pro Ile Ala Ala
                1045                1050                1055

Gly Thr Ser Asp His Phe Thr Lys Pro Ser Pro Arg Ala Asp Val Phe
            1060                1065                1070

Gln Arg Gln Arg Ile Pro Asp Ser Tyr Ala Arg Pro Leu Leu Thr Pro
        1075                1080                1085

Ala Pro Leu Asp Ser Gly Pro Gly Pro Phe Lys Thr Pro Met Gln Pro
    1090                1095                1100

Pro Pro Ser Ser Gln Asp Pro Tyr Gly Ser Val Ser Gln Ala Ser Arg
1105                1110                1115                1120

Arg Leu Ser Val Asp Pro Tyr Glu Arg Pro Ala Leu Thr Pro Arg Pro
                1125                1130                1135

Ile Asp Asn Phe Ser His Asn Gln Ser Asn Asp Pro Tyr Ser Gln Pro
            1140                1145                1150

Pro Leu Thr Pro His Pro Ala Val Asn Glu Ser Phe Ala His Pro Ser
        1155                1160                1165
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Arg Ala Phe Ser Gln Pro Gly Thr Ile Ser Arg Pro Thr Ser Gln Asp
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Pro Tyr Ser Gln Pro Pro Gly Thr Pro Arg Pro Val Val Asp Ser Tyr
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Ser Gln Ser Ser Gly Thr Ala Arg Ser Asn Thr Asp Pro Tyr Ser Gln
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Pro Pro Gly Thr Pro Arg Pro Thr Thr Val Asp Pro Tyr Ser Gln Gln
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Pro Gln Thr Pro Arg Pro Ser Thr Gln Thr Asp Leu Phe Val Thr Pro
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Val Thr Asn Gln Arg His Ser Asp Pro Tyr Ala His Pro Pro Gly Thr
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Pro Arg Pro Gly Ile Ser Val Pro Tyr Ser Gln Pro Pro Ala Thr Pro
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Arg Pro Arg Ile Ser Glu Gly Phe Thr Arg Ser Ser Met Thr Arg Pro
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Val Leu Met Pro Asn Gln Asp Pro Phe Leu Gln Ala Ala Gln Asn Arg
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Gly Pro Ala Leu Pro Gly Pro Leu Val Arg Pro Pro Asp Thr Cys Ser
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Gln Thr Pro Arg Pro Pro Gly Pro Gly Leu Ser Asp Thr Phe Ser Arg
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Val Ser Pro Ser Ala Ala Arg Asp Pro Tyr Asp Gln Ser Pro Met Thr
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Pro Arg Ser Gln Ser Asp Ser Phe Gly Thr Ser Gln Thr Ala His Asp
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Val Ala Asp Gln Pro Arg Pro Gly Ser Glu Gly Ser Phe Cys Ala Ser
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Ser Asn Ser Pro Met His Ser Gln Gly Gln Gln Phe Ser Gly Val Ser
1395 1400 1405

Gln Leu Pro Gly Pro Val Pro Thr Ser Gly Val Thr Asp Thr Gln Asn
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Thr Val Asn Met Ala Gln Ala Asp Thr Glu Lys Leu Arg Gln Arg Gln
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Lys Leu Arg Glu Ile Ile Leu Gln Gln Gln Gln Gln Lys Lys Ile Ala
1445 1450 1455

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Gly Arg Gln Glu Lys Gly Ser Gln Asp Ser Pro Ala Val Pro His Pro
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Gly Pro Leu Gln His Trp Gln Pro Glu Asn Val Asn Gln Ala Phe Thr
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Arg Pro Pro Pro Pro Tyr Pro Gly Asn Ile Arg Ser Pro Val Ala Pro
    1490                1495                1500

Pro Leu Gly Pro Arg Tyr Ala Val Phe Pro Lys Asp Gln Arg Gly Pro
1505                1510                1515                1520

Tyr Pro Pro Asp Val Ala Ser Met Gly Met Arg Pro His Gly Phe Arg
                1525                1530                1535

Phe Gly Phe Pro Gly Gly Ser His Gly Thr Met Pro Ser Gln Glu Arg
            1540                1545                1550

Phe Leu Val Pro Pro Gln Gln Ile Gln Gly Ser Gly Val Ser Pro Gln
        1555                1560                1565

Leu Arg Arg Ser Val Ser Val Asp Met Pro Arg Pro Leu Asn Asn Ser
    1570                1575                1580

Gln Met Asn Asn Pro Val Gly Leu Pro Gln His Phe Ser Pro Gln Ser
1585                1590                1595                1600

Leu Pro Val Gln Gln His Asn Ile Leu Gly Gln Ala Tyr Ile Glu Leu
                1605                1610                1615

Arg His Arg Ala Pro Asp Gly Arg Gln Arg Leu Pro Phe Ser Ala Pro
            1620                1625                1630

Pro Gly Ser Val Val Glu Ala Ser Ser Asn Leu Arg His Gly Asn Phe
        1635                1640                1645

Ile Pro Arg Pro Asp Phe Pro Gly Pro Arg His Thr Asp Pro Met Arg
    1650                1655                1660

Arg Pro Pro Gln Gly Leu Pro Asn Gln Leu Pro Val His Pro Asp Leu
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Glu Gln Val Pro Pro Ser Gln Gln Glu Gln Gly His Ser Val His Ser
                1685                1690                1695

Ser Ser Met Val Met Arg Thr Leu Asn His Pro Leu Gly Gly Glu Phe
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Ser Glu Ala Pro Leu Ser Thr Ser Val Pro Ser Glu Thr Thr Ser Asp
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Asn Leu Gln Ile Thr Thr Gln Pro Ser Asp Gly Leu Glu Glu Lys Leu
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Gly Val Glu Val Lys Asp Leu Asp Asp Glu Asp Leu Glu Asn Leu Asn
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Leu Asp Thr Glu Asp Gly Lys Val Val Glu Leu Asp Thr Leu Asp Asn
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Leu Glu Thr Asn Asp Pro Asn Leu Asp Asp Leu Leu Arg Ser Gly Glu
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Phe Asp Ile Ile Ala Tyr Thr Asp Pro Glu Leu Asp Met Gly Asp Lys
    1810                1815                1820

Lys Ser Met Phe Asn Glu Glu Leu Asp Leu Pro Ile Asp Asp Lys Leu
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Asp Asn Gln Cys Val Ser Val Glu Pro Lys Lys Lys Glu Gln Glu Asn
                1845                1850                1855

Lys Thr Leu Val Leu Ser Asp Lys His Ser Pro Gln Lys Lys Ser Thr
            1860                1865                1870

Val Thr Asn Glu Val Lys Thr Glu Val Leu Ser Pro Asn Ser Lys Val
        1875                1880                1885

Glu Ser Lys Cys Glu Thr Glu Lys Asn Asp Glu Asn Lys Asp Asn Val
    1890                1895                1900

Asp Thr Pro Cys Ser Gln Ala Ser Ala His Ser Asp Leu Asn Asp Gly
1905                1910                1915                1920

Glu Lys Thr Ser Leu His Pro Cys Asp Pro Asp Leu Phe Glu Lys Arg
                1925                1930                1935

Thr Asn Arg Glu Thr Ala Gly Pro Ser Ala Asn Val Ile Gln Ala Ser
            1940                1945                1950

Thr Gln Leu Pro Ala Gln Asp Val Ile Asn Ser Cys Gly Ile Thr Gly
        1955                1960                1965

Ser Thr Pro Val Leu Ser Ser Leu Leu Ala Asn Glu Lys Ser Asp Asn
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Ser Asp Ile Arg Pro Ser Gly Ser Pro Pro Pro Pro Thr Leu Pro Ala
1985                1990                1995                2000

Ser Pro Ser Asn His Val Ser Ser Leu Pro Pro Phe Ile Ala Pro Pro
                2005                2010                2015

Gly Arg Val Leu Asp Asn Ala Met Asn Ser Asn Val Thr Val Val Ser
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Ala Thr Gln Thr Gly Pro Gln Thr Ser Gln Ser Gly Thr Ser Ser Met
2065                2070                2075                2080

Ser Gly Pro Gln Gln Leu Met Ile Pro Gln Thr Leu Ala Gln Gln Asn
                2085                2090                2095

Arg Glu Arg Pro Leu Leu Leu Glu Glu Gln Pro Leu Leu Leu Gln Asp
            2100                2105                2110

Leu Leu Asp Gln Glu Arg Gln Glu Gln Gln Gln Gln Arg Gln Met Gln
        2115                2120                2125

Ala Met Ile Arg Gln Arg Ser Glu Pro Phe Phe Pro Asn Ile Asp Phe
    2130                2135                2140

Asp Ala Ile Thr Asp Pro Ile Met Lys Ala Lys Met Val Ala Leu Lys
2145                2150                2155                2160

Gly Ile Asn Lys Val Met Ala Gln Asn Asn Leu Gly Met Pro Pro Met
                2165                2170                2175

Val Met Ser Arg Phe Pro Phe Met Gly Gln Val Val Thr Gly Thr Gln
            2180                2185                2190

Asn Ser Glu Gly Gln Asn Leu Gly Pro Gln Ala Ile Pro Gln Asp Gly
        2195                2200                2205

Ser Ile Thr His Gln Ile Ser Arg Pro Asn Pro Pro Asn Phe Gly Pro
    2210                2215                2220

Gly Phe Val Asn Asp Ser Gln Arg Lys Gln Tyr Glu Glu Trp Leu Gln
2225                2230                2235                2240

Glu Thr Gln Gln Leu Leu Gln Met Gln Gln Lys Tyr Leu Glu Glu Gln
                2245                2250                2255

Ile Gly Ala His Arg Lys Ser Lys Lys Ala Leu Ser Ala Lys Gln Arg
            2260                2265                2270

Thr Ala Lys Lys Ala Gly Arg Glu Phe Pro Glu Glu Asp Ala Glu Gln
        2275                2280                2285

Leu Lys His Val Thr Glu Gln Gln Ser Met Val Gln Lys Gln Leu Glu
    2290                2295                2300

Gln Ile Arg Lys Gln Gln Lys Glu His Ala Glu Leu Ile Glu Asp Tyr
2305                2310                2315                2320
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```
Arg Ile Lys Gln Gln Gln Gln Cys Ala Met Ala Pro Pro Thr Met Met
                2325                2330                2335

Pro Ser Val Gln Pro Gln Pro Pro Leu Ile Pro Gly Ala Thr Pro Pro
            2340                2345                2350

Thr Met Ser Gln Pro Thr Phe Pro Met Val Pro Gln Gln Leu Gln His
        2355                2360                2365

Gln Gln His Thr Thr Val Ile Ser Gly His Thr Ser Pro Val Arg Met
    2370                2375                2380

Pro Ser Leu Pro Gly Trp Gln Pro Asn Ser Ala Pro Ala His Leu Pro
2385                2390                2395                2400

Leu Asn Pro Pro Arg Ile Gln Pro Pro Ile Ala Gln Leu Pro Ile Lys
                2405                2410                2415

Thr Cys Thr Pro Ala Pro Gly Thr Val Ser Asn Ala Asn Pro Gln Ser
            2420                2425                2430

Gly Pro Pro Pro Arg Val Glu Phe Asp Asp Asn Asn Pro Phe Ser Glu
        2435                2440                2445

Ser Phe Gln Glu Arg Glu Arg Lys Glu Arg Leu Arg Glu Gln Gln Glu
    2450                2455                2460

Arg Gln Arg Ile Gln Leu Met Gln Glu Val Asp Arg Gln Arg Ala Leu
2465                2470                2475                2480

Gln Gln Arg Met Glu Met Glu Gln His Gly Met Val Gly Ser Glu Ile
                2485                2490                2495

Ser Ser Ser Arg Thr Ser Val Ser Gln Ile Pro Phe Tyr Ser Ser Asp
            2500                2505                2510

Leu Pro Cys Asp Phe Met Gln Pro Leu Gly Pro Leu Gln Gln Ser Pro
        2515                2520                2525

Gln His Gln Gln Gln Met Gly Gln Val Leu Gln Gln Gln Asn Ile Gln
    2530                2535                2540

Gln Gly Ser Ile Asn Ser Pro Ser Thr Gln Thr Phe Met Gln Thr Asn
2545                2550                2555                2560

Glu Arg Arg Gln Val Gly Pro Pro Ser Phe Val Pro Asp Ser Pro Ser
                2565                2570                2575

Ile Pro Val Gly Ser Pro Asn Phe Ser Ser Val Lys Gln Gly His Gly
            2580                2585                2590

Asn Leu Ser Gly Thr Ser Phe Gln Gln Ser Pro Val Arg Pro Ser Phe
        2595                2600                2605
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Thr Pro Ala Leu Pro Ala Ala Pro Pro Val Ala Asn Ser Ser Leu Pro
    2610                2615                2620

Cys Gly Gln Asp Ser Thr Ile Thr His Gly His Ser Tyr Pro Gly Ser
2625                2630                2635                2640

Thr Gln Ser Leu Ile Gln Leu Tyr Ser Asp Ile Ile Pro Glu Glu Lys
                2645                2650                2655

Gly Lys Lys Lys Arg Thr Arg Lys Lys Lys Arg Asp Asp Asp Ala Glu
            2660                2665                2670

Ser Thr Lys Ala Pro Ser Thr Pro His Ser Asp Ile Thr Ala Pro Pro
        2675                2680                2685

Thr Pro Gly Ile Ser Glu Thr Thr Ser Thr Pro Ala Val Ser Thr Pro
    2690                2695                2700

Ser Glu Leu Pro Gln Gln Ala Asp Gln Glu Ser Val Glu Pro Val Gly
2705                2710                2715                2720

Pro Ser Thr Pro Asn Met Ala Ala Gly Gln Leu Cys Thr Glu Leu Glu
                2725                2730                2735

Asn Lys Leu Pro Asn Ser Asp Phe Ser Gln Ala Thr Pro Asn Gln Gln
            2740                2745                2750

Thr Tyr Ala Asn Ser Glu Val Asp Lys Leu Ser Met Glu Thr Pro Ala
        2755                2760                2765

Lys Thr Glu Glu Ile Lys Leu Glu Lys Ala Glu Thr Glu Ser Cys Pro
    2770                2775                2780

Gly Gln Glu Glu Pro Lys Leu Glu Glu Gln Asn Gly Ser Lys Val Glu
2785                2790                2795                2800

Gly Asn Ala Val Ala Cys Pro Val Ser Ser Ala Gln Ser Pro Pro His
                2805                2810                2815

Ser Ala Gly Ala Pro Ala Ala Lys Gly Asp Ser Gly Asn Glu Leu Leu
            2820                2825                2830

Lys His Leu Leu Lys Asn Lys Lys Ser Ser Ser Leu Leu Asn Gln Lys
        2835                2840                2845

Pro Glu Gly Ser Ile Cys Ser Glu Asp Asp Cys Thr Lys Asp Asn Lys
    2850                2855                2860

Leu Val Glu Lys Gln Asn Pro Ala Glu Gly Leu Gln Thr Leu Gly Ala
2865                2870                2875                2880

Gln Met Gln Gly Gly Phe Gly Cys Gly Asn Gln Leu Pro Lys Thr Asp
                2885                2890                2895
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Gly Gly Ser Glu Thr Lys Lys Gln Arg Ser Lys Arg Thr Gln Arg Thr
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Gly Glu Lys Ala Ala Pro Arg Ser Lys Lys Arg Lys Lys Asp Glu Glu
        2915                2920                2925

Glu Lys Gln Ala Met Tyr Ser Ser Thr Asp Thr Phe Thr His Leu Lys
    2930                2935                2940

Gln Val Arg Gln Leu Ser Leu Leu Pro Leu Met Glu Pro Ile Ile Gly
2945                2950                2955                2960

Val Asn Phe Ala His Phe Leu Pro Tyr Gly Ser Gly Gln Phe Asn Ser
                2965                2970                2975

Gly Asn Arg Leu Leu Gly Thr Phe Gly Ser Ala Thr Leu Glu Gly Val
            2980                2985                2990

Ser Asp Tyr Tyr Ser Gln Leu Ile Tyr Lys Gln Asn Asn Leu Ser Asn
        2995                3000                3005

Pro Pro Thr Pro Pro Ala Ser Leu Pro Pro Thr Pro Pro Pro Met Ala
    3010                3015                3020

Cys Gln Lys Met Ala Asn Gly Phe Ala Thr Thr Glu Glu Leu Ala Gly
3025                3030                3035                3040

Lys Ala Gly Val Leu Val Ser His Glu Val Thr Lys Thr Leu Gly Pro
                3045                3050                3055

Lys Pro Phe Gln Leu Pro Phe Arg Pro Gln Asp Asp Leu Leu Ala Arg
            3060                3065                3070

Ala Leu Ala Gln Gly Pro Lys Thr Val Asp Val Pro Ala Ser Leu Pro
        3075                3080                3085

Thr Pro Pro His Asn Asn Gln Glu Glu Leu Arg Ile Gln Asp His Cys
    3090                3095                3100

Gly Asp Arg Asp Thr Pro Asp Ser Phe Val Pro Ser Ser Ser Pro Glu
3105                3110                3115                3120

Ser Val Val Gly Val Glu Val Ser Arg Tyr Pro Asp Leu Ser Leu Val
                3125                3130                3135

Lys Glu Glu Pro Pro Glu Pro Val Pro Ser Pro Ile Ile Pro Ile Leu
            3140                3145                3150

Pro Ser Thr Ala Gly Lys Ser Ser Glu Ser Arg Arg Asn Asp Ile Lys
        3155                3160                3165

Thr Glu Pro Gly Thr Leu Tyr Phe Ala Ser Pro Phe Gly Pro Ser Pro
    3170                3175                3180
```

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Asn Gly Pro Arg Ser Gly Leu Ile Ser Val Ala Ile Thr Leu His Pro
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Thr Ala Ala Glu Asn Ile Ser Ser Val Val Ala Ala Phe Ser Asp Leu
                3205                3210                3215

Leu His Val Arg Ile Pro Asn Ser Tyr Glu Val Ser Ser Ala Pro Asp
            3220                3225                3230

Val Pro Ser Met Gly Leu Val Ser Ser His Arg Ile Asn Pro Gly Leu
        3235                3240                3245

Glu Tyr Arg Gln His Leu Leu Leu Arg Gly Pro Pro Pro Gly Ser Ala
    3250                3255                3260

Asn Pro Pro Arg Leu Val Ser Ser Tyr Arg Leu Lys Gln Pro Asn Val
3265                3270                3275                3280

Pro Phe Pro Pro Thr Ser Asn Gly Leu Ser Gly Tyr Lys Asp Ser Ser
                3285                3290                3295

His Gly Ile Ala Glu Ser Ala Ala Leu Arg Pro Gln Trp Cys Cys His
            3300                3305                3310

Cys Lys Val Val Ile Leu Gly Ser Gly Val Arg Lys Ser Phe Lys Asp
        3315                3320                3325

Leu Thr Leu Leu Asn Lys Asp Ser Arg Glu Ser Thr Lys Arg Val Glu
    3330                3335                3340

Lys Asp Ile Val Phe Cys Ser Asn Asn Cys Phe Ile Leu Tyr Ser Ser
3345                3350                3355                3360

Thr Ala Gln Ala Lys Asn Ser Glu Asn Lys Glu Ser Ile Pro Ser Leu
                3365                3370                3375

Pro Gln Ser Pro Met Arg Glu Thr Pro Ser Lys Ala Phe His Gln Tyr
            3380                3385                3390

Ser Asn Asn Ile Ser Thr Leu Asp Val His Cys Leu Pro Gln Leu Pro
        3395                3400                3405

Glu Lys Ala Ser Pro Pro Ala Ser Pro Pro Ile Ala Phe Pro Pro Ala
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Phe Glu Ala Ala Gln Val Glu Ala Lys Pro Asp Glu Leu Lys Val Thr
3425                3430                3435                3440

Val Lys Leu Lys Pro Arg Leu Arg Ala Val His Gly Gly Phe Glu Asp
                3445                3450                3455

Cys Arg Pro Leu Asn Lys Lys Trp Arg Gly Met Lys Trp Lys Lys Trp
            3460                3465                3470
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Ser Ile His Ile Val Ile Pro Lys Gly Thr Phe Lys Pro Pro Cys Glu
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Asp Glu Ile Asp Glu Phe Leu Lys Lys Leu Gly Thr Ser Leu Lys Pro
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Asp Pro Val Pro Lys Asp Tyr Arg Lys Cys Cys Phe Cys His Glu Glu
3505 3510 3515 3520

Gly Asp Gly Leu Thr Asp Gly Pro Ala Arg Leu Leu Asn Leu Asp Leu
3525 3530 3535

Asp Leu Trp Val His Leu Asn Cys Ala Leu Trp Ser Thr Glu Val Tyr
3540 3545 3550

Glu Thr Gln Ala Gly Ala Leu Ile Asn Val Glu Leu Ala Leu Arg Arg
3555 3560 3565

Gly Leu Gln Met Lys Cys Val Phe Cys His Lys Thr Gly Ala Thr Ser
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Gly Cys His Arg Phe Arg Cys Thr Asn Ile Tyr His Phe Thr Cys Ala
3585 3590 3595 3600

Ile Lys Ala Gln Cys Met Phe Phe Lys Asp Lys Thr Met Leu Cys Pro
3605 3610 3615

Met His Lys Pro Lys Gly Ile His Glu Gln Glu Leu Ser Tyr Phe Ala
3620 3625 3630

Val Phe Arg Arg Val Tyr Val Gln Arg Asp Glu Val Arg Gln Ile Ala
3635 3640 3645

Ser Ile Val Gln Arg Gly Glu Arg Asp His Thr Phe Arg Val Gly Ser
3650 3655 3660

Leu Ile Phe His Thr Ile Gly Gln Leu Leu Pro Gln Gln Met Gln Ala
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Phe His Ser Pro Lys Ala Leu Phe Pro Val Gly Tyr Glu Ala Ser Arg
3685 3690 3695

Leu Tyr Trp Ser Thr Arg Tyr Ala Asn Arg Arg Cys Arg Tyr Leu Cys
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Ser Ile Glu Glu Lys Asp Gly Arg Pro Val Phe Val Ile Arg Ile Val
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Glu Gln Gly His Glu Asp Leu Val Leu Ser Asp Ile Ser Pro Lys Gly
3730 3735 3740

Val Trp Asp Lys Ile Leu Glu Pro Val Ala Cys Val Arg Lys Lys Ser
3745 3750 3755 3760

Glu Met Leu Gln Leu Phe Pro Ala Tyr Leu Lys Gly Glu Asp Leu Phe
3765 3770 3775

Gly Leu Thr Val Ser Ala Val Ala Arg Ile Ala Glu Ser Leu Pro Gly
3780 3785 3790

Val Glu Ala Cys Glu Asn Tyr Thr Phe Arg Tyr Gly Arg Asn Pro Leu
3795 3800 3805

Met Glu Leu Pro Leu Ala Val Asn Pro Thr Gly Cys Ala Arg Ser Glu
3810 3815 3820

Pro Lys Met Ser Ala His Val Lys Arg Pro His Thr Leu Asn Ser Thr
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Ser Thr Ser Lys Ser Phe Gln Ser Thr Val Thr Gly Glu Leu Asn Ala
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Pro Tyr Ser Lys Gln Phe Val His Ser Lys Ser Ser Gln Tyr Arg Lys
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Met Lys Thr Glu Trp Lys Ser Asn Val Tyr Leu Ala Arg Ser Arg Ile
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Gln Gly Leu Gly Leu Tyr Ala Ala Arg Asp Ile Glu Lys His Thr Met
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Val Ile Glu Tyr Ile Gly Thr Ile Ile Arg Asn Glu Val Ala Asn Arg
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Lys Glu Lys Leu Tyr Glu Ser Gln Asn Arg Gly Val Tyr Met Phe Arg
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Met Asp Asn Asp His Val Ile Asp Ala Thr Leu Thr Gly Gly Pro Ala
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Arg Tyr Ile Asn His Ser Cys Ala Pro Asn Cys Val Ala Glu Val Val
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Thr Phe Glu Arg Gly His Lys Ile Ile Ile Ser Ser Ser Arg Arg Ile
3970 3975 3980

Gln Lys Gly Glu Glu Leu Cys Tyr Asp Tyr Lys Phe Asp Phe Glu Asp
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Asp Gln His Lys Ile Pro Cys His Cys Gly Ala Val Asn Cys Arg Lys
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Trp Met Asn

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<212> PRT
<213> Homo sapiens

<400> 426

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Val Ser Leu Arg Gln Gly Pro His Gly Asp Gly Ala Arg Arg Pro Arg
            20                  25                  30

Val Thr Ala Pro Leu Pro Gln Ala Ala His Cys Val Leu Ala Gln Asp
        35                  40                  45

Pro Glu Asn Gln Ala Leu Ala Arg Phe Tyr Cys Tyr Thr Glu Arg Thr
    50                  55                  60

Ile Ala Lys Arg Leu Val Leu Arg Arg Asp Pro Ser Val Lys Arg Thr
65                  70                  75                  80

Leu Cys Arg Gly Cys Ser Ser Leu Leu Val Pro Gly Leu Thr Cys Thr
                85                  90                  95

His Arg Gln Arg Arg Cys Arg Gly Gln Arg Trp Thr Val Gln Thr Cys
            100                 105                 110

Leu Thr Cys Gln Arg Ser Gln Arg Phe Leu Asn Asp Pro Gly His Leu
        115                 120                 125

Leu Trp Gly Asp Arg Pro Glu Ala Gln Leu Gly Ser Gln Ala Asp Ser
    130                 135                 140

Lys Pro Leu Gln Pro Leu Pro Asn Thr Ala His Ser Ile Ser Asp Arg
145                 150                 155                 160

Leu Pro Glu Glu Lys Met Gln Thr Gln Gly Ser Ser Asn Gln
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<210> 427
<211> 184
<212> PRT
<213> Homo sapiens

<400> 427

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Cys Glu Thr Ala Lys Met Val Val Gly Ala Phe Pro Met Ala Lys Leu
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Leu Tyr Leu Gly Ile Arg Gln Val Ser Lys Pro Leu Ala Asn Arg Ile
            20                  25                  30

Lys Glu Ala Ala Arg Arg Ser Glu Phe Phe Lys Thr Tyr Ile Cys Leu
        35                  40                  45

Pro Pro Ala Gln Leu Tyr His Trp Val Glu Met Arg Thr Lys Met Arg
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    50                  55                  60

Ile Met Gly Phe Arg Gly Thr Val Ile Lys Pro Leu Asn Glu Glu Ala
65                  70                  75                  80

Ala Ala Glu Leu Gly Ala Glu Leu Leu Gly Glu Ala Thr Ile Phe Ile
                85                  90                  95

Val Gly Gly Gly Cys Leu Val Leu Glu Tyr Trp Arg His Gln Ala Gln
            100                 105                 110

Gln Arg His Lys Glu Glu Glu Gln Arg Ala Ala Trp Asn Ala Leu Arg
        115                 120                 125

Asp Glu Val Gly His Leu Ala Leu Ala Leu Glu Ala Leu Gln Ala Gln
    130                 135                 140

Val Gln Ala Ala Pro Pro Gln Gly Ala Leu Glu Glu Leu Arg Thr Glu
145                 150                 155                 160

Leu Gln Glu Val Arg Ala Gln Leu Cys Asn Pro Gly Arg Ser Ala Ser
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His Ala Val Pro Ala Ser Lys Lys
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<212> DNA
<213> Homo sapiens

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<212> DNA
<213> Homo sapiens

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aaaaaaaaaa aaaaaaactc gag 2843

<210> 431
<211> 640
<212> DNA
<213> Homo sapiens

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<210> 432
<211> 2068
<212> DNA
<213> Homo sapiens

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<211> 1723
<212> DNA
<213> Homo sapiens

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<211> 1702
<212> PRT
<213> Homo sapiens

<400> 434
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Val Asp Gly Ile Tyr Arg Leu Ser Gly Val Ala Ser Asn Ile Gln Arg
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Leu Arg His Glu Phe Asp Ser Glu His Val Pro Asp Leu Thr Lys Glu
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Pro Tyr Val Gln Asp Ile His Ser Val Gly Ser Leu Cys Lys Leu Tyr
    50                  55                  60

Phe Arg Glu Leu Pro Asn Pro Leu Leu Thr Tyr Gln Leu Tyr Glu Lys
 65                  70                  75                  80

Phe Ser Asp Ala Val Ser Ala Ala Thr Asp Glu Glu Arg Leu Ile Lys
                 85                  90                  95

Ile His Asp Val Ile Gln Gln Leu Pro Pro Pro His Tyr Arg Thr Leu
            100                 105                 110

Glu Phe Leu Met Arg His Leu Ser Leu Leu Ala Asp Tyr Cys Ser Ile
        115                 120                 125

Thr Asn Met His Ala Lys Asn Leu Ala Ile Val Trp Ala Pro Asn Leu
    130                 135                 140

Leu Arg Ser Lys Gln Ile Glu Ser Ala Cys Phe Ser Gly Thr Ala Ala
145                 150                 155                 160

Phe Met Glu Val Arg Ile Gln Ser Val Val Val Glu Phe Ile Leu Asn
                165                 170                 175

His Val Asp Val Leu Phe Ser Gly Arg Ile Ser Met Ala Met Gln Glu
            180                 185                 190

Gly Ala Ala Ser Leu Ser Arg Pro Lys Ser Leu Leu Val Ser Ser Pro
        195                 200                 205

Ser Thr Lys Leu Leu Thr Leu Glu Glu Ala Gln Ala Arg Thr Gln Ala
    210                 215                 220

Gln Val Asn Ser Pro Ile Val Thr Glu Asn Lys Tyr Ile Glu Val Gly
225                 230                 235                 240

Glu Gly Pro Ala Ala Leu Gln Gly Lys Phe His Thr Ile Ile Glu Phe
                245                 250                 255

Pro Leu Glu Arg Lys Arg Pro Gln Asn Lys Met Lys Lys Ser Pro Val
            260                 265                 270

Gly Ser Trp Arg Ser Phe Phe Asn Leu Gly Lys Ser Ser Ser Val Ser
        275                 280                 285

Lys Arg Lys Leu Gln Arg Asn Glu Ser Glu Pro Ser Glu Met Lys Ala
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Met Ala Leu Lys Gly Gly Arg Ala Glu Gly Thr Leu Arg Ser Ala Lys
305                 310                 315                 320

Ser Glu Glu Ser Leu Thr Ser Leu His Ala Val Asp Gly Asp Ser Lys
                325                 330                 335

Leu Phe Arg Pro Arg Arg Pro Arg Ser Ser Ser Asp Ala Leu Ser Ala
            340                 345                 350

Ser Phe Asn Gly Glu Met Leu Gly Asn Arg Cys Asn Ser Tyr Asp Asn
        355                 360                 365

Leu Pro His Asp Asn Glu Ser Glu Glu Glu Gly Gly Leu Leu His Ile
    370                 375                 380

Pro Ala Leu Met Ser Pro His Ser Ala Glu Asp Val Asp Leu Ser Pro
385                 390                 395                 400

Pro Asp Ile Gly Val Ala Ser Leu Asp Phe Asp Pro Met Ser Phe Gln
                405                 410                 415

Cys Ser Pro Pro Lys Ala Glu Ser Glu Cys Leu Glu Ser Gly Ala Ser
            420                 425                 430

Phe Leu Asp Ser Pro Gly Tyr Ser Lys Asp Lys Pro Ser Ala Asn Lys
        435                 440                 445

Lys Asp Ala Glu Thr Gly Ser Ser Gln Cys Gln Thr Pro Gly Ser Thr
    450                 455                 460

Ala Ser Ser Glu Pro Val Ser Pro Leu Gln Glu Lys Leu Ser Pro Phe
465                 470                 475                 480

Phe Thr Leu Asp Leu Ser Pro Thr Glu Asp Lys Ser Ser Lys Pro Ser
                485                 490                 495

Ser Phe Thr Glu Lys Val Val Tyr Ala Phe Ser Pro Lys Ile Gly Arg
            500                 505                 510

Lys Leu Ser Lys Ser Pro Ser Met Ser Ile Ser Glu Pro Ile Ser Val
        515                 520                 525

Thr Leu Pro Pro Arg Val Ser Glu Val Ile Gly Thr Val Ser Asn Thr
    530                 535                 540

Thr Ala Gln Asn Ala Ser Ser Ser Thr Trp Asp Lys Cys Val Glu Glu
545                 550                 555                 560

Arg Asp Ala Thr Asn Arg Ser Pro Thr Gln Ile Val Lys Met Lys Thr
                565                 570                 575

Asn Glu Thr Val Ala Gln Glu Ala Tyr Glu Ser Glu Val Gln Pro Leu
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580 585 590

Asp Gln Val Ala Ala Glu Glu Val Glu Leu Pro Gly Lys Glu Asp Gln
595 600 605

Ser Val Ser Ser Ser Gln Ser Lys Ala Val Ala Ser Gly Gln Thr Gln
610 615 620

Thr Gly Ala Val Thr His Asp Pro Pro Gln Asp Ser Val Pro Val Ser
625 630 635 640

Ser Val Ser Leu Ile Pro Pro Pro Pro Pro Pro Lys Asn Val Ala Arg
645 650 655

Met Leu Ala Leu Ala Leu Ala Glu Ser Ala Gln Gln Ala Ser Thr Gln
660 665 670

Ser Leu Lys Arg Pro Gly Thr Ser Gln Ala Gly Tyr Thr Asn Tyr Gly
675 680 685

Asp Ile Ala Val Ala Thr Thr Glu Asp Asn Leu Ser Ser Ser Tyr Ser
690 695 700

Ala Val Ala Leu Asp Lys Ala Tyr Phe Gln Thr Asp Arg Pro Ala Glu
705 710 715 720

Gln Phe His Leu Gln Asn Asn Ala Pro Gly Asn Cys Asp His Pro Leu
725 730 735

Pro Glu Thr Thr Ala Thr Gly Asp Pro Thr His Ser Asn Thr Thr Glu
740 745 750

Ser Gly Glu Gln His His Gln Val Asp Leu Thr Gly Asn Gln Pro His
755 760 765

Gln Ala Tyr Leu Ser Gly Asp Pro Glu Lys Ala Arg Ile Thr Ser Val
770 775 780

Pro Leu Asp Ser Glu Lys Ser Asp Asp His Val Ser Phe Pro Glu Asp
785 790 795 800

Gln Ser Gly Lys Asn Ser Met Pro Thr Val Ser Phe Leu Asp Gln Asp
805 810 815

Gln Ser Pro Pro Arg Phe Tyr Ser Gly Asp Gln Pro Pro Ser Tyr Leu
820 825 830

Gly Ala Ser Val Asp Lys Leu His His Pro Leu Glu Phe Ala Asp Lys
835 840 845

Ser Pro Thr Pro Pro Asn Leu Pro Ser Asp Lys Ile Tyr Pro Pro Ser
850 855 860

Gly Ser Pro Glu Glu Asn Thr Ser Thr Ala Thr Met Thr Tyr Met Thr

865 870 875 880

Thr Thr Pro Ala Thr Ala Gln Met Ser Thr Lys Glu Ala Ser Trp Asp
885 890 895

Val Ala Glu Gln Pro Thr Thr Ala Asp Phe Ala Ala Ala Thr Leu Gln
900 905 910

Arg Thr His Arg Thr Asn Arg Pro Leu Pro Pro Pro Pro Ser Gln Arg
915 920 925

Ser Ala Glu Gln Pro Pro Val Val Gly Gln Val Gln Ala Ala Thr Asn
930 935 940

Ile Gly Leu Asn Asn Ser His Lys Val Gln Gly Val Val Pro Val Pro
945 950 955 960

Glu Arg Pro Pro Glu Pro Arg Ala Met Asp Asp Pro Ala Ser Ala Phe
965 970 975

Ile Ser Asp Ser Gly Ala Ala Ala Ala Gln Cys Pro Met Ala Thr Ala
980 985 990

Val Gln Pro Gly Leu Pro Glu Lys Val Arg Asp Gly Ala Arg Val Pro
995 1000 1005

Leu Leu His Leu Arg Ala Glu Ser Val Pro Ala His Pro Cys Gly Phe
1010 1015 1020

Pro Ala Pro Leu Pro Pro Thr Arg Met Met Glu Ser Lys Met Ile Ala
1025 1030 1035 1040

Ala Ile His Ser Ser Ser Ala Asp Ala Thr Ser Ser Ser Asn Tyr His
1045 1050 1055

Ser Phe Val Thr Ala Ser Ser Thr Ser Val Asp Asp Ala Leu Pro Leu
1060 1065 1070

Pro Leu Pro Val Pro Gln Pro Lys His Ala Ser Gln Lys Thr Val Tyr
1075 1080 1085

Ser Ser Phe Ala Arg Pro Asp Val Thr Thr Glu Pro Phe Gly Pro Asp
1090 1095 1100

Asn Cys Leu His Phe Asn Met Thr Pro Asn Cys Gln Tyr Arg Pro Gln
1105 1110 1115 1120

Ser Val Pro Pro His His Asn Lys Leu Glu Gln His Gln Val Tyr Gly
1125 1130 1135

Ala Arg Ser Glu Pro Pro Ala Ser Met Gly Leu Arg Tyr Asn Thr Tyr
1140 1145 1150

Val Ala Pro Gly Arg Asn Ala Ser Gly His His Ser Lys Pro Cys Ser

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Arg Val Glu Tyr Val Ser Ser Leu Ser Ser Ser Val Arg Asn Thr Cys
    1170                1175                1180

Tyr Pro Glu Asp Ile Pro Pro Tyr Pro Thr Ile Arg Arg Val Gln Ser
1185                1190                1195                1200

Leu His Ala Pro Pro Ser Ser Met Ile Arg Ser Val Pro Ile Ser Arg
                1205                1210                1215

Thr Glu Val Pro Pro Asp Asp Glu Pro Ala Tyr Cys Pro Arg Pro Leu
            1220                1225                1230

Tyr Gln Tyr Lys Pro Tyr Gln Ser Ser Gln Ala Arg Ser Asp Tyr His
        1235                1240                1245

Val Thr Gln Leu Gln Pro Tyr Phe Glu Asn Gly Arg Val His Tyr Arg
    1250                1255                1260

Tyr Ser Pro Tyr Ser Ser Ser Ser Ser Ser Tyr Tyr Ser Pro Asp Gly
1265                1270                1275                1280

Ala Leu Cys Asp Val Asp Ala Tyr Gly Thr Val Gln Leu Arg Pro Leu
                1285                1290                1295

His Arg Leu Pro Asn Arg Asp Phe Ala Phe Tyr Asn Pro Arg Leu Gln
            1300                1305                1310

Gly Lys Ser Leu Tyr Ser Tyr Ala Gly Leu Ala Pro Arg Pro Arg Ala
        1315                1320                1325

Asn Val Thr Gly Tyr Phe Ser Pro Asn Asp His Asn Val Val Ser Met
    1330                1335                1340

Pro Pro Ala Ala Asp Val Lys His Thr Tyr Thr Ser Trp Asp Leu Glu
1345                1350                1355                1360

Asp Met Glu Lys Tyr Arg Met Gln Ser Ile Arg Arg Glu Ser Arg Ala
                1365                1370                1375

Arg Gln Lys Val Lys Gly Pro Val Met Ser Gln Tyr Asp Asn Met Thr
            1380                1385                1390

Pro Ala Val Gln Asp Asp Leu Gly Gly Ile Tyr Val Ile His Leu Arg
        1395                1400                1405

Ser Lys Ser Asp Pro Gly Lys Thr Gly Leu Leu Ser Val Ala Glu Gly
    1410                1415                1420

Lys Glu Ser Arg His Ala Ala Lys Ala Ile Ser Pro Glu Gly Glu Asp
1425                1430                1435                1440

Arg Phe Tyr Arg Arg His Pro Glu Ala Glu Met Asp Arg Ala His His
```

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                1445                    1450                    1455

His Gly Gly His Gly Ser Thr Gln Pro Glu Lys Pro Ser Leu Pro Gln
            1460                    1465                    1470

Lys Gln Ser Ser Leu Arg Ser Arg Lys Leu Pro Asp Met Gly Cys Ser
        1475                    1480                    1485

Leu Pro Glu His Arg Ala His Gln Glu Ala Ser His Arg Gln Phe Cys
    1490                    1495                    1500

Glu Ser Lys Asn Gly Pro Pro Tyr Pro Gln Gly Ala Gly Gln Leu Asp
1505                    1510                    1515                    1520

Tyr Gly Ser Lys Gly Ile Pro Asp Thr Ser Glu Pro Val Ser Tyr His
                1525                    1530                    1535

Asn Ser Gly Val Lys Tyr Ala Ala Ser Gly Gln Glu Ser Leu Arg Leu
            1540                    1545                    1550

Asn His Lys Glu Val Arg Leu Ser Lys Glu Met Glu Arg Pro Trp Val
        1555                    1560                    1565

Arg Gln Pro Ser Ala Pro Glu Lys His Ser Arg Asp Cys Tyr Lys Glu
    1570                    1575                    1580

Glu Glu His Leu Thr Gln Ser Ile Val Pro Pro Pro Lys Pro Glu Arg
1585                    1590                    1595                    1600

Ser His Ser Leu Lys Leu His His Thr Gln Asn Val Glu Arg Asp Pro
                1605                    1610                    1615

Ser Val Leu Tyr Gln Tyr Gln Pro His Gly Lys Arg Gln Ser Ser Val
            1620                    1625                    1630

Thr Val Val Ser Gln Tyr Asp Asn Leu Glu Asp Tyr His Ser Leu Pro
        1635                    1640                    1645

Gln His Gln Arg Gly Val Phe Gly Gly Gly Gly Met Gly Thr Tyr Val
    1650                    1655                    1660

Pro Pro Gly Phe Pro His Pro Gln Ser Arg Thr Tyr Ala Thr Ala Leu
1665                    1670                    1675                    1680

Gly Gln Gly Ala Phe Leu Pro Ala Glu Leu Ser Leu Gln His Pro Glu
                1685                    1690                    1695

Thr Gln Ile His Ala Glu
            1700


<210> 435
<211> 160
<212> PRT
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<213> Homo sapiens

<400> 435
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Gly Pro Ala Ser Lys Val Lys Gln Asp Met Pro Pro Pro Gly Gly Tyr
            20                  25                  30

Gly Pro Ile Asp Tyr Lys Arg Asn Leu Pro Arg Arg Gly Leu Ser Gly
        35                  40                  45

Tyr Ser Met Leu Ala Ile Gly Ile Gly Thr Leu Ile Tyr Gly His Trp
    50                  55                  60

Ser Ile Met Lys Trp Asn Arg Glu Arg Arg Arg Leu Gln Ile Glu Asp
65                  70                  75                  80

Phe Glu Ala Arg Ile Ala Leu Leu Pro Leu Leu Gln Ala Glu Thr Asp
                85                  90                  95

Arg Arg Thr Leu Gln Met Leu Arg Glu Asn Leu Glu Glu Glu Ala Ile
            100                 105                 110

Ile Met Lys Asp Val Pro Asp Trp Lys Val Gly Glu Ser Val Phe His
        115                 120                 125

Thr Thr Arg Trp Val Pro Pro Leu Ile Gly Glu Leu Tyr Gly Leu Arg
    130                 135                 140

Thr Thr Glu Glu Ala Leu His Ala Ser His Gly Phe Met Trp Tyr Thr
145                 150                 155                 160


<210> 436
<211> 396
<212> PRT
<213> Homo sapiens

<400> 436
Arg Ala Gln Glu Ala Ala Ala Ala Ala Ala Asp Gly Pro Pro Ala Ala
                5                   10                  15

Asp Gly Glu Asp Gly Gln Asp Pro His Ser Lys His Leu Tyr Thr Ala
            20                  25                  30

Asp Met Phe Thr His Gly Ile Gln Ser Ala Ala His Phe Val Met Phe
        35                  40                  45

Phe Ala Pro Trp Cys Gly His Cys Gln Arg Leu Gln Pro Thr Trp Asn
    50                  55                  60

Asp Leu Gly Asp Lys Tyr Asn Ser Met Glu Asp Ala Lys Val Tyr Val
65                  70                  75                  80
```

```
Ala Lys Val Asp Cys Thr Ala His Ser Asp Val Cys Ser Ala Gln Gly
                85                  90                  95

Val Arg Gly Tyr Pro Thr Leu Lys Leu Phe Lys Pro Gly Gln Glu Ala
            100                 105                 110

Val Lys Tyr Gln Gly Pro Arg Asp Phe Gln Thr Leu Glu Asn Trp Met
        115                 120                 125

Leu Gln Thr Leu Asn Glu Glu Pro Val Thr Pro Glu Pro Glu Val Glu
    130                 135                 140

Pro Pro Ser Ala Pro Glu Leu Lys Gln Gly Leu Tyr Glu Leu Ser Ala
145                 150                 155                 160

Ser Asn Phe Glu Leu His Val Ala Gln Gly Asp His Phe Ile Lys Phe
                165                 170                 175

Phe Ala Pro Trp Cys Gly His Cys Lys Ala Leu Ala Pro Thr Trp Glu
            180                 185                 190

Gln Leu Ala Leu Gly Leu Glu His Ser Glu Thr Val Lys Ile Gly Lys
        195                 200                 205

Val Asp Cys Thr Gln His Tyr Glu Leu Cys Ser Gly Asn Gln Val Arg
    210                 215                 220

Gly Tyr Pro Thr Leu Leu Trp Phe Arg Asp Gly Lys Lys Val Asp Gln
225                 230                 235                 240

Tyr Lys Gly Lys Arg Asp Leu Glu Ser Leu Arg Glu Tyr Val Glu Ser
                245                 250                 255

Gln Leu Gln Arg Thr Glu Thr Gly Ala Thr Glu Thr Val Thr Pro Ser
            260                 265                 270

Glu Ala Pro Val Leu Ala Ala Glu Pro Glu Ala Asp Lys Gly Thr Val
        275                 280                 285

Leu Ala Leu Thr Glu Asn Thr Phe Asp Asp Thr Ile Ala Glu Gly Ile
    290                 295                 300

Thr Phe Ile Lys Phe Tyr Ala Pro Trp Cys Gly His Cys Lys Thr Leu
305                 310                 315                 320

Ala Pro Thr Trp Glu Glu Leu Ser Lys Lys Glu Phe Pro Gly Leu Ala
                325                 330                 335

Gly Val Lys Ile Ala Glu Val Asp Cys Thr Ala Glu Arg Asn Ile Cys
            340                 345                 350

Ser Lys Tyr Ser Val Arg Gly Tyr Pro Thr Leu Leu Leu Phe Arg Gly
        355                 360                 365
```

```
Gly Lys Lys Val Ser Glu His Ser Gly Gly Arg Asp Leu Asp Ser Leu
    370                 375                 380

His Arg Phe Val Leu Ser Gln Ala Lys Asp Glu Leu
385                 390                 395
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<210> 437
<211> 92
<212> PRT
<213> Homo sapiens

<400> 437

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Ala Glu Met Asp Pro Leu Arg Ala Gln Gln Leu Ala Ala Glu Leu Glu
                  5                  10                  15

Val Glu Met Met Ala Asp Met Tyr Asn Arg Met Thr Ser Ala Cys His
             20                  25                  30

Arg Lys Cys Val Pro Pro His Tyr Lys Glu Ala Glu Leu Ser Lys Gly
         35                  40                  45

Glu Ser Val Cys Leu Asp Arg Cys Val Ser Lys Tyr Leu Asp Ile His
     50                  55                  60

Glu Arg Met Gly Lys Lys Leu Thr Glu Leu Ser Met Gln Asp Glu Glu
 65                  70                  75                  80

Leu Met Lys Arg Val Gln Gln Ser Ser Gly Pro Ala
                 85                  90
```

<210> 438
<211> 303
<212> PRT
<213> Homo sapiens

<400> 438

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Lys Asn Pro Ala Lys Met Ser Leu Tyr Pro Ser Leu Glu Asp Leu Lys
                  5                  10                  15

Val Asp Lys Val Ile Gln Ala Gln Thr Ala Phe Ser Ala Asn Pro Ala
             20                  25                  30

Asn Pro Ala Ile Leu Ser Glu Ala Ser Ala Pro Ile Pro His Asp Gly
         35                  40                  45

Asn Leu Tyr Pro Arg Leu Tyr Pro Glu Leu Ser Gln Tyr Met Gly Leu
     50                  55                  60

Ser Leu Asn Glu Glu Glu Ile Arg Ala Asn Val Ala Val Val Ser Gly
 65                  70                  75                  80
```

```
Ala Pro Leu Gln Gly Gln Leu Val Ala Arg Pro Ser Ser Ile Asn Tyr
                 85                  90                  95

Met Val Ala Pro Val Thr Gly Asn Asp Val Gly Ile Arg Arg Ala Glu
            100                 105                 110

Ile Lys Gln Gly Ile Arg Glu Val Ile Leu Cys Lys Asp Gln Asp Gly
        115                 120                 125

Lys Ile Gly Leu Arg Leu Lys Ser Ile Asp Asn Gly Ile Phe Val Gln
    130                 135                 140

Leu Val Gln Ala Asn Ser Pro Ala Ser Leu Val Gly Leu Arg Phe Gly
145                 150                 155                 160

Asp Gln Val Leu Gln Ile Asn Gly Glu Asn Cys Ala Gly Trp Ser Ser
                165                 170                 175

Asp Lys Ala His Lys Val Leu Lys Gln Ala Phe Gly Glu Lys Ile Thr
            180                 185                 190

Met Thr Ile Arg Asp Arg Pro Phe Glu Arg Thr Ile Thr Met His Lys
        195                 200                 205

Asp Ser Thr Gly His Val Gly Phe Ile Phe Lys Asn Gly Lys Ile Thr
    210                 215                 220

Ser Ile Val Lys Asp Ser Ser Ala Ala Arg Asn Gly Leu Leu Thr Glu
225                 230                 235                 240

His Asn Ile Cys Glu Ile Asn Gly Gln Asn Val Ile Gly Leu Lys Asp
                245                 250                 255

Ser Gln Ile Ala Asp Ile Leu Ser Thr Ser Gly Thr Val Val Thr Ile
            260                 265                 270

Thr Ile Met Pro Ala Phe Ile Phe Glu His Ile Ile Lys Arg Met Ala
        275                 280                 285

Pro Ser Ile Met Lys Ser Leu Met Asp His Thr Ile Pro Glu Val
    290                 295                 300


<210> 439
<211> 378
<212> PRT
<213> Homo sapiens

<400> 439
Val Val Pro Ser Thr Lys Asp Phe Leu Val Gly Val Lys Gly Ser Gly
                  5                  10                  15

Gly His Arg Gly Gly Gly Glu Met Ala Phe Ser Gly Ser Gln Ala Pro
             20                  25                  30
```

```
Tyr Leu Ser Pro Ala Val Pro Phe Ser Gly Thr Ile Gln Gly Gly Leu
        35                  40                  45

Gln Asp Gly Leu Gln Ile Thr Val Asn Gly Thr Val Leu Ser Ser Ser
    50                  55                  60

Gly Thr Arg Phe Ala Val Asn Phe Gln Thr Gly Phe Ser Gly Asn Asp
65                  70                  75                  80

Ile Ala Phe His Phe Asn Pro Arg Phe Glu Asp Gly Gly Tyr Val Val
                85                  90                  95

Cys Asn Thr Arg Gln Asn Gly Ser Trp Gly Pro Glu Glu Arg Lys Thr
            100                 105                 110

His Met Pro Phe Gln Lys Gly Met Pro Phe Asp Leu Cys Phe Leu Val
        115                 120                 125

Gln Ser Ser Asp Phe Lys Val Met Val Asn Gly Ile Leu Phe Val Gln
    130                 135                 140

Tyr Phe His Arg Val Pro Phe His Arg Val Asp Thr Ile Ser Val Asn
145                 150                 155                 160

Gly Ser Val Gln Leu Ser Tyr Ile Ser Phe Gln Asn Pro Arg Thr Val
                165                 170                 175

Pro Val Gln Pro Ala Phe Ser Thr Val Pro Phe Ser Gln Pro Val Cys
            180                 185                 190

Phe Pro Pro Arg Pro Arg Gly Arg Arg Gln Lys Pro Pro Gly Val Trp
        195                 200                 205

Pro Ala Asn Pro Ala Pro Ile Thr Gln Thr Val Ile His Thr Val Gln
    210                 215                 220

Ser Ala Pro Gly Gln Met Phe Ser Thr Pro Ala Ile Pro Pro Met Met
225                 230                 235                 240

Tyr Pro His Pro Ala Tyr Pro Met Pro Phe Ile Thr Thr Ile Leu Gly
                245                 250                 255

Gly Leu Tyr Pro Ser Lys Ser Ile Leu Leu Ser Gly Thr Val Leu Pro
            260                 265                 270

Ser Ala Gln Arg Phe His Ile Asn Leu Cys Ser Gly Asn His Ile Ala
        275                 280                 285

Phe His Leu Asn Pro Arg Phe Asp Glu Asn Ala Val Val Arg Asn Thr
    290                 295                 300

Gln Ile Asp Asn Ser Trp Gly Ser Glu Glu Arg Ser Leu Pro Arg Lys
305                 310                 315                 320
```

```
Met Pro Phe Val Arg Gly Gln Ser Phe Ser Val Trp Ile Leu Cys Glu
                325                 330                 335

Ala His Cys Leu Lys Val Ala Val Asp Gly Gln His Leu Phe Glu Tyr
            340                 345                 350

Tyr His Arg Leu Arg Asn Leu Pro Thr Ile Asn Arg Leu Glu Val Gly
        355                 360                 365

Gly Asp Ile Gln Leu Thr His Val Gln Thr
    370                 375
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<211> 2239
<212> DNA
<213> Homo sapiens

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<210> 441
<211> 5981
<212> DNA
<213> Homo sapiens

<400> 441
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tgcactccag cctaggggac aagagcgcga gacttcatct c 5940
5981

<210> 442
<211> 337
<212> DNA
<213> Homo sapiens

<400> 442
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tggcatagat tttatcatat tctggatttt ttggattctt ttgttttctc atcactggat 120
tcaggaaagc ctgttgtgtc caccatctcc aaaggaggtt acctgcaggg aaatgttaac 180
gggaggctgc cttccctggg caacaaggag ccacctgggc aggagaaagt gcagctgaag 240
aggaaagtca ctttactgag gggagtctcc attatca 300
337

<210> 443
<211> 739
<212> DNA
<213> Homo sapiens

<400> 443
gaattcgaac cccttcggat tctaatcaag aaaatgattt gctatgggaa gagaagtttc
ctgaaagaac aactgttact gaattacctc agacttcaca tgtatcattc tccgagcctg 60
atattccgtc ctcaaaaagt actgagttac ctgtggactg gagtattaaa acgcgactcc 120
ttttcacctc ttctcaaccc tttacctggg cagatcattt gaaagcacag gaagaagctc 180
aaggtcttgt ccagcattgt agggcaacag aagttacttt gcctaaaagt atacaggatc 240
ccaaactctc ctctgagctc cgttgtacct tccagcagag ccttatctat tggctccacc 300
ctgctttgtc ttggctacca ctgttccctc gtattggagc tgatagaaaa atggctggaa 360
agacaagtcc ttggtcaaat gatgcaaccc tgcagcatgt tttaatgagt gactggtctg 420
tgagctttac ttctctatat aatttgctga agacaaaact ttgcccctat ttctacgttt 480
gtacctatca gtttactgtc ctgttccgag cagcaggatt agctggaagt gacttaatca 540
cagctctcat atctccaaca actcgaggtt taagagaagc tatgagaaat gaaggtattg 600
aattttctct gcctttaata aaagaaagtg gccataagaa ggagacagca tctggaacaa 660
gcttgggata tggggagga 720
739

<210> 444
<211> 738
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(738)
<223> n = A,T,C or G

<400> 444

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tgataaatac agtttgttat tgnggtctca ttaaattaat cagcttttc acactggggt 60
aaagaaacag atgatgatac tagggaatgg aaacaaaatt ggaaacctgg gttatttggg 120
gatttatatt gtactctgca cagttgccct tttttttagg cgtgttccct ggaaaagagg 180
gacggatgaa cctggaagta agtaaaagac attctaggtg tgtagcatca aggcagttaa 240
tatccaagca tcagctttct ctttatacat ctacactgca tggcctgcac caaataagga 300
actgaaccag gggtatgttt ttacctccac agctgcctcc ttccatcana gcaccttgat 360
gaacttaatg tctagtcaca cgtcattggc atgttttctc cccagcattt aattacaaag 420
ctttctttct ttggatagga tcagttctta agagcagccc cggtaactgg aggaatggga 480
gccgttttga tganaaaaat gggtttggtg ttcaggatct ccaattataa atgtagtctc 540
tcagcaccac attccgtaaa gatgatttcc caagtaacgg tatttgacta agttgctcca 600
gagtgttagg ggcaaaccac agttagtaag ctccttatga acaacccccca tatcaagtac 660
tttgtccatt tgcaggca                                                720
                                                                   738
```

```
<210> 445
<211> 716
<212> DNA
<213> Homo sapiens

<400> 445
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acgccaacct gtccgagggc cgccccgtgg gtccggcccg ccgtggcgcc tcatcgctgc 120
tcggcccgga aggcttcttc cttggcaaga tgggattccg ggaggcggtg gcggccggag 180
acgtggattt gcctcaggtg cggagccgca gctacaggag gatgctcgcg aggaccccca 240
gagctccgcc cggagggtac tgtgaggccg ttaggagctg gcggtggatg acttccgcat 300
tcaaacactg gagccatcac acggaagcac gaggagggta tcctcggcag ctactcccgg 360
tcgctcaagg tgtctctcgc tcgccctcta ggtgcgggag gagctcgagg cccaactaag 420
ctgcttccgg gagctgctgg gcagggcccc cacgcacgcg gacgggcacc agcacgtgca 480
cgtgctccca ggtggacaga cgccttcgtg ggcctgagca cttgcggccg gcacatgtcc 540
gctcaccgcg tgtccggggc cctggcgcgg gtcctggaag gtaccctagc gggccacacc 600
ctgacagccg agctgatggc gcaccccggc taccccagtg tgcctcccac cggcggctgc 660
ggtgaaggcc ccgacgcttt ctctttgctc ttgggaagcg gcttgcattg agcttg    716

<210> 446
<211> 641
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(641)
<223> n = A,T,C or G

<400> 446
gctncagctc gcgctccgcc ctcaggcaca gcatccccac gggcctccac gccaacctgt 60
ccgaggnccg ccccgtgggt ccggcccgcc gtggcgcctc atcgctgctc ggcccggaag 120
gcttnttcct tggcaagatg ggattccggg aggcggnggc ggccggagac gtggatttgc 180
ctcaggtgcg gagccgcagc tacaggagga tgctcgcgag gacccccaga gctccgcccg 240
gagggtactg tgaggccgtt aggagctggc ggnggatgac ttccgcattc aaacactgga 300
gccatcacac ggaagcacga ggagggtatc ctcggcagct actcccggtc gctcaaggtg 360
tctntcgctc gccctctagg ngcgggagga gctcgaggcc caactaanct gcttccggga 420
gctgctgggc agggccccca cgcacgcgga cgggcaccag cacgtgcacg tgctcccagg 480
nggacagacg ccttcgtggg cctgancact tgcggccggn acatgttccc tcacccgcgg 540
gtccgggccc ttggcgcggg tcctggaagg taccctacgg gccacaccct gacagccgaa 600
```

```
ctgatggccc accccggcta ccccangtgt gcctccaccc g                        641

<210> 447
<211> 652
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(652)
<223> n = A,T,C or G

<400> 447
gaattcgaac cccttcgctt ttagaaaatt gtatatgcag ctggatgaag gcagcctcac 60
ctttaatgcc aacccagatg agggagtgaa ctactttatg tccaagggta tcctggatga 120
ttcgccaaag gaaatagcaa agtttatctt ctgtacaaga acactaaatt ggaaaaaact 180
gagaatctat cttgatgaaa ggagagatgt cttggatgac cttgtaacat tgcataattt 240
tagaaatcag ttcttgccaa atgcactgag agaatttttt cgtcatatcc atgcccctga 300
agagcgtgga gagtatcttg aaactcttat aacaaagttc tcacatagat tctgtgcttg 360
caaccctgat ttaatgcgag aacttggcct tagtcctgat gctgtctatg tactgtgcta 420
ctctttgatt ctactttcca ttgacctcac tagccctcat gtgaagaata aaatgtcaaa 480
aagggaattt attcgaaata ccccgcgcgc tgctcaaaat attagtgaag aattttgtan 540
ggcatcttta tgacaatatc taccttatt gggccatggn ggctggcata aaaaagcacc 600
aattggctaa ggactttcaa gtttttact ttcagaactt aaaagcttac cc           652

<210> 448
<211> 677
<212> DNA
<213> Homo sapiens

<400> 448
gaattcgaac cccttcggcg cctggcagag gtgaaggact ccctggacat cgaggtcaag 60
cagaacttca ttgacccccct ccagaacctg tgcgagaaag acctgaagga gatccagcac 120
cacctgaaga aactggaggg ccgccgcctg gactttgact acaagaagaa gcggcagggc 180
aagatccccg atgaggagct acgccaggcg ctggagaagt tcgaggagtc caaggaggtg 240
gcagaaacca gcatgcacaa cctcctggag actgacatcg agcaggtgag tcagctctcg 300
gccctggtgg atgcacagct ggactaccac cggcaggccg tgcagatcct ggacgagctg 360
gcggagaagc tcaagcgcag gatgcgggaa gcttcctcac gccctaagcg ggagtataag 420
ccgaagcccc gggagccctt tgaccttgga gagcctgagc agtccaacgg gggcttcccc 480
tgcaccacag cccccaagat cgcagcttca tcgtctttcc gatcttccga caagcccatc 540
cggaccccta gccggagcat gccgccccctg gaccagccga gctgcaaggc gctgtacgac 600
ttcgagcccg agaacgacgg ggagctgggc ttcatgaggg cgacgtcatc acgctgacca 660
accagatcga tgagaac                                                 677

<210> 449
<211> 603
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(603)
<223> n = A,T,C or G
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<400> 449
tttttgtan aaagagacat ttaatacttc tgtttacaaa attcaggcgt acatttcagt 60
ttgccctgga ccgtgcccaa agctgtgtgc tcatctctgc gcccctcatg tacttctgac 120
gagggggtg cagggcaggg cagagcagag cctggggtcc ggaggcttca ctggaccaca 180
gggggagggg aatgtgaatg tggcctggcc canagaactc cccatttcat cgattttgca 240
ttgggcgata gaggaagcag atgtcggggc tgcctgcctt ggtctanagg agatggctgg 300
ggccacttcc cacagggtga agtggcagcg gctcagcaag gggagcctgg ccaccagggg 360
ctgggacatg cgctcactgg aacctttgtg cttggccctc ggcagcgcgg ctgtggtccc 420
gtgtgaggtg tgctggggtg gggtgtgggt ggctggtggt ggcagcttgt gccagagtga 480
cacaggcctc cctgggttgg gatgggggca agttaaaaag ctgaaaaggt acttggcttt 540
ctgagggcgg gcttgggagc aggccctgca gganaccatg ttctctgtcc tcagcagatc 600
cac 603

<210> 450
<211> 678
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(678)
<223> n = A,T,C or G

<400> 450
gaattcgaac cccttcgcat caatataana tgccacccat ctgcagttaa tttcttttcc 60
tcatcatgtg attaaaagtg gtgattcagt gggaactggg aatgttttta gctggtggta 120
gaaggctgcc tacactgggc actgttttag attctcatat catttaaaca gcaaggaggt 180
tcagggaaga ataaccgtag ccttgggtaa tccactaggg cttttgtgag taggagagct 240
gatacctcac attcttagca ggtgaaaact tgccatgatg gaaacagata gtgaagagtt 300
actgacgtat cccaaattat atgctgtgac ataaattccc agcatgccca gccctgattt 360
ctgagttcat aagtaattct agtgaacctt agtaggaatt ctgggtaaga aaatgaggtt 420
gccattggtc ttgtttgcat caccaagacc agacatccag aagagcccct caccttgaaa 480
agcagacaga ttttaaatta accccctcct tcccactcac cttcatctcc ctaagagttt 540
tggccattta attccacatt ttgaaaggaa tacattggtg aaatttggga agagaatctg 600
tgctatgcaa tgtttcatta aaatcttcag tttttcaagt ctctctaaaa ataatttgta 660
gatctatctt ggatggat 678

<210> 451
<211> 651
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(651)
<223> n = A,T,C or G

<400> 451
tttttcatca acaaaaatca agcattttcn tttttttgaa acaagaaaag cgcatcgtan 60
aaaccaagat tctgtacaat attctaacat tatatgtaca taaaattata ttactcataa 120
ctatattgaa aagtcttatt tgtagaatat ggctggcaac aaagaaagac ccataccatt 180
tagcgtttga agcagggcag gtagcaagag aacattagca aagacacctt tgtgcctgga 240
tacacaatcc tgctactaag ttatgtgact aaccagcaca ctctaagttc tgtggtttgt 300
tcgttgtttc acattctagt agggaattct gcagcaggcg atgcgaaaaa naanacatgg 360

tcaaatgaaa tgtgaaatgc tgtttaaaat ctgcatattg gctatgataa tgggtttgng 420
aatccaagtt gcattggaag ttcactcatt ctccattcat tatgcatgcc tccagtgatt 480
taatgaattt cagcaggngg aaaagacagc tttgaacaga tcagatgggc tgtgagtcan 540
attcttgatt ctttttcctc atttggctcc tgaatgttgc anaaaactgg ttttgtacac 600
tggggaagga gagagtgaag accctccagt tggttcctca gtcagctccg t 651

<210> 452
<211> 679
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(679)
<223> n = A,T,C or G

<400> 452
gaattcgaac cccttcgcat tgctcagccn nctaccactg ctaagagcca tctccaccag 60
aagcctggcc agacctggaa gaacaaagag catcatctct ctgacagaga gtttgtgttc 120
aaagaacctc agcaggtagt acgtagagct cctgagccac gagtgattga cagagagggt 180
gtgtatgaaa tcagcctgtc acccacaggt gtatctaggg tctgtttgta tcctggcttt 240
gttgacgtga aagaagctga ctggatattg gaacagcttt gtcaagatgt tccctggaaa 300
cagaggaccg gcatcagaga ggatataact tatcagcaac caagacttac agcatggtat 360
ggagaacttc cttacactta ttcaagaatc actatggaac caaatcctca ctggcaccct 420
gtgctgcgca cactaaagaa ccgcattgaa gagaacactg gccacacctt caactcctta 480
ctctgcaatc tttatcgcaa tgagaaggac agcgtggact ggcacagtga tgatgaaccc 540
tcactaggga ggtgccccat tattgcttca ctaagttttg gtgccacacg cacatttgag 600
atgagaaaga agccaccacc agaagagaat ggagactaca catatgtgga aagagtgaag 660
ataccettgg atcatggta 679

<210> 453
<211> 630
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(630)
<223> n = A,T,C or G

<400> 453
gaattcgaac cccttcggaa ggccaagggn ntagaaggng gctccggccc cagctgtcgt 60
gaagaagcag gaggctaaga aagtggtgaa tcccctgttt gagaaaaggc ctaagaattt 120
tggcattgga caggacatcc agcccaaaag agacctcacc cgctttgtga aatggccccg 180
ctatatcagg ttgcagcggc agagagccat cctctataag cggctgaaag tgcctcctgc 240
gattaaccag ttcacccagg ccctggaccg ccaaacagct actcagctgc ttaagctggc 300
ccacaagtac agaccagaga caaagcaaga gaagaagcag agactgttgg cccgggccga 360
gaagaaggct gctggcaaag gggacgtccc aacgaagaga ccacctgtcc ttcgagcagg 420
agttaacacc cgtcaccacc ttggtggaga acaagaaagc tcagctggtg gtgattgcac 480
acgacgtgga tcccatcgag ctggttgtct tcttgcctgc cctgtgtcgt aaaatggggg 540
tcccttactg cattatcaag ggaaaggcaa gactgggacg tctagtccac aggaagacct 600
gcaccactgt cgccttccac aggtgaactc 630

<210> 454

<211> 677
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(677)
<223> n = A,T,C or G

<400> 454
gaattcgaac cccttcgccc gcatgcggna catcccсttg gccccagggt cagactggcg 60
cgatctgccc aacatcgagg tgcggctctc agacggcacc atggccagga agctgcggta 120
tacccaccat gacaggaaga acggccgcag cagctctggg gccctccgtg gggtctgctc 180
ctgcgtggaa gccggcaaag cctgcgaccc cgcagccagg cagttcaaca ccctcatccc 240
ctggtgcctg ccccacaccg ggaaccggca caaccactgg gctggcctct atggaaggct 300
cgagtgggac ggcttcttca gcacaaccgt caccaacccc gagcccatgg gcaagcaggg 360
ccgcgtgctc cacccagagc agcaccgtgt ggtgagcgtg cgggagtgtg cccgctccca 420
gggcttccct gacacctacc ggctcttcgg caacatcctg gacaagcacc ggcaggtggg 480
caatgccgtg ccaccgcccc tggcaaagcc attggcttgg agatcaagct ttgtattgtt 540
ggccaaagcc cgagagagtg cctcagctaa aataaaggag gaggaagctg ctaaggacta 600
gttctgcctt cccgtcaccc ctgtttctgg caccaggaat cccccacaat gcacttgatg 660
gtggggtttt aacatgt 677

<210> 455
<211> 598
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(598)
<223> n = A,T,C or G

<400> 455
ttttttggtt tataggagag atttatttga agaaatatta caacatataa aaactacata 60
aagtcttaat ttccactcat acagtggtag atttgatata atgcataata aaaaactttt 120
aaaatccaga atgcacaaag tactgcacaa tttgatcact aaatcattag ttgataagcg 180
aacctcacac aacagcttca tgtcagccaa ggccacaaac accatgtacc acacatgtga 240
acggacagat tgacatgtta aaaacacaac atcagtgcat gttggggatt cctggtgcca 300
gaaacagggg tgacgggagg gcagaactag tccttagcag cttcctcctc ctttatttta 360
gctgaggcac tctctcgggc tttggccaac atacaaagct tgatctccaa gccaatggct 420
ttggccaggg gcggtggcac ggcattgccc acctgccggt gcttngtcca ggatgttgcc 480
cgaagagccg gtaggtggtc aagggaagcc cctggggaag cgggcacact cccggacgct 540
naccacacgg tgctgntttt gggtggagca ccgcggcctt gcttgcccat gggctcgg 598

<210> 456
<211> 574
<212> DNA
<213> Homo sapiens

<400> 456
ggaattcgaa ccccttcggg gcggggagcc ccgtagaacc gagggggtcg gcccgggggt 60
cccgggggag gtggagatgg tgaaggggca gccgttcgac gtgggcccgc gctacacgca 120
gttgcagtac atcggcgagg gcgcgtacgg catggtcagc tcggcctatg accacgtgcg 180

caagactcgc gtggccatca agaagatcag ccccttcgaa catcagacct actgccagcg 240
cacgctccgg gagatccaga tcctgctgcg cttccgccat gagaatgtca tcggcatccg 300
agacattctg cgggcgtcca ccctggaagc catgagagat gtctacattg tgcaggacct 360
gatggagact gacctgtaca agttgctgaa aagccagcag ctgagcaatg accatatctg 420
ctacttcctc taccagatcc tgcggggcct caagtacatc cactccgcca acgtgctcca 480
ccgagatcta aagccctcca acctgcttca tcaacaccac ctggcgacct ttaaaatttg 540
tgaatttccg gcctggcccc cggattgccc gaat 574

<210> 457
<211> 546
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(546)
<223> n = A,T,C or G

<400> 457
tttttgaca catctctata tttatatatt agacgggtca gggaggtggc aggggcgccg 60
ggctctccac gccccccagc tccacttctg ctcaccacac acagaagcag cgagggcacg 120
cgaagtgaca gctttgacag ggaggggatt cggcccggcc tggctcctca gggatgctag 180
cccttgagac taaggaatgt tccttcaggg aaactagggt ggggtttgaa tganatgagg 240
ggggcaggca tggccctgag tccctactca gcgcccccca ccctccacct ctgcccttca 300
gcaggttggg gcagccagaa cccttccatt ccagaactgc cagagactgg gacgctgggg 360
aaggtaaggg cgcagcagca gcagcgggag attgaactgg ggccacctga gctcccgagg 420
ccccgtgggg agggcgggtg gggaggaaaa ggccttggcc tgcctgaagc tggaggcctc 480
agcaaaggag agaggtggcc aggcccatgc tccaccccgg cctgggctgc caanggtccc 540
gggctg 546

<210> 458
<211> 674
<212> DNA
<213> Homo sapiens

<400> 458
gaattcgaac cccttcggta ttattaagaa ctaagagaat agcttgccag atacaaatgg 60
aaacaccttc caaatgagtc ggagaaaatg tcttgcagta ttatgggtaa aatagcaaag 120
agcttgggaa tacagtttgc taatatcaag tccttaacaa cgaccattct tcattcaaga 180
ttagttgtgt ataaatacat gcttcttcag gagttgactt agaaaacaag caaacaaaca 240
aacatcagaa actatttaca actgggagca atccttgaag aacataaaga atataaatat 300
caacaaaggc tgaaaactct tttttagatt aaagatcaaa tggacatgtc atcggaatgt 360
attgtatggc tcttgattaa atcctggagc aaagtggaga gtgaggaaca actgtaaaga 420
atgtgaatac ggactgtgta ttagataaca gtaccataaa tttcctggat gggataatta 480
tgttgtgact atgtaagaga atattttgcc cttagaagat atatgatgaa gcatttagaa 540
gtaaagtatc atgacatctt gcaaataact ttcaagtgat tcagccagat atataaaaat 600
tatatataac acattatata atttatattt atataattat aatacattat ataatttata 660
cattataatt atat 674

<210> 459
<211> 682
<212> DNA
<213> Homo sapiens

<400> 459
tttttttaaa tccatggctt gttaattgtc atcccagtta tttacatgtg actatagaga 60
ctgcattctc ccagctgcca ggccgccagg gctttgccac tggtataatt tataacacga 120
ctaattaaaa tgaatttgct tgcaataagg ttctgtgtgc tatttgtggg agaggagtta 180
ttaaaatttt cagtacagta atagtaaact tgaatgcaaa gtaataataa tcatacattt 240
ttaattacat gtttaatacc catttggcta atgtagaact attctgaaaa ttacttggga 300
tcagcacaat gtctttttgt gcttagtagt atccaaagac atccttctga atgggcttag 360
caatatgcac tgtcatcaag atacagctgt ttgatgacag acacacagtg tgttcctatg 420
atactttgca caagatcagc tatgacaaat acaagttcat tttgcttatt gcaggcaaat 480
aatgtccttt gcaggaactt ggatggagcc agaggccatt attctaagtg aaatacctca 540
ggagtggaaa accaaatacc atatgttctc acttacaagt gggaactaag ctatgggtac 600
acaaacgcat atagagtaat ggactctggc gactcatact acatattgag tacaatgtac 660
actacttggg tgatgggtgc ac 682

<210> 460
<211> 663
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(663)
<223> n = A,T,C or G

<400> 460
gaattcgaac cccttcgcgg ggcgcgcgag cggcgccagc tcggggcagc ggaacccaga 60
gaagctgagg gggcggtagc ggcggcgacg gcgacgacga cgactcccgc gcgtgtgccc 120
agcctcttcc cgccgcagcc gccctttttcc tccctccctt acgtccccga gtgcggcagt 180
accgcctcct tcccagccgc gcggcttcct ccagacctct cggcgcgggt gagccctatt 240
cccagaggca ggtggtgctg accctgtaac ccaaaggagg aaacagctgg ctaagctcat 300
cattgttact ggtgggcacc atgtccttga agcttcaggc aagcaatgta accaacaaga 360
atgaccccaa gtccatcaac tctcgagtct tcattggaaa cctcaacaca gctctggtga 420
agaaatcaga tgtggagacc atcttctcta agtatggccg tgtggccggc tgttctgtgc 480
acaagggcta tgcctttgtt cagtactcca atgagcgcca tgcccgggca gctgtgctgg 540
gagagaatgg gcgggtgctg gccgggcaga ccctggacat caacatggct ggagagccta 600
agcctgacag acccaagggg ctaaaganaa gcagcatctg gcatatacag gctcttcgac 660
tac 663

<210> 461
<211> 612
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(612)
<223> n = A,T,C or G

<400> 461
tttttgggga tccaatctnt ttattgtcag ggtcccctcc ctgnggcccc ccgccaaacc 60
tatagaaaaa acccaagcct gggagtgtcc tggggagggg aggtagtatg gggaaacccc 120
tgtgctctac cctntggcct gggcagtgca nacagggagg gctcatgggg aaggagtagg 180
ccagtaactc cacctgcana ggacatggca ctggctggga tgcgttgggg gaggaggcgc 240
ctgctgccag ctttcctntg gtacccgctg gggggtggca tccagggttg ggtgcccggc 300

ttgaggcctg gggcagcgat gcccttcacc tgctggnggc cattgctcct gtcaggctgc 360
ttactgcaag gccccatcat ccgcgtctgt gtcctggctg tgttccagct cttcctcgct 420
gngtgtcagg agcccttcct catcgccgtc gtctcgggtc cgtgcttccc cctggggcag 480
gcctgcctca naagttgtgt tctcttgggg ggctggtggc cggttgttgc caccgcaccg 540
caccaccact ggcaccggca ccgntgcacc accaccgccg ccgccgccgn tggngccacc 600
ttcatcaccc tt 612

<210> 462
<211> 672
<212> DNA
<213> Homo sapiens

<400> 462
gaattcgaac cccttcggat ggaaggggcc ggggcagcgt cggggaaagg aagggccgga 60
ggcgcggcgg cgggcggccg agaggggcgg cggcggcggc ggcggcgggg ttcccgcgcc 120
gcggagcccg gcccgagagc cgcgtccacg ttcctgcctc ctgctcccgc cgccctgggg 180
cgccgccatg acgcccgatc tgctcaactt cagccccaga tgtcaccaag ctctcggact 240
ctaacaagga gaacgcgctg cacagctaca gcacccagaa gggcccctg aaggcagggg 300
agcagcgggc gggctctgag gtcatcagcc ggggtggccc tcggaaggcg gacgggcagc 360
gtcaggcctt ggactacgtg gagctctcgc cgctgaccca ggcttccccg cagcgggccc 420
gcaccccagc ccgcactcct gaccgccctg gccaagcagg aggagctgga gcgggacctg 480
gcccagcgct ccgaggagcg gcgcaagtgg tttgaggcca cagacagcag gaccccagag 540
gtgcctgctg gtgaggggcc gcgccggggc ctgggtgccc cctgactgag gaccagcaaa 600
accggcttag tgaggagatc gagaagaagt ggcaggagct ggagaagctt gcccttgcgg 660
gagaataacc gg 672

<210> 463
<211> 562
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(562)
<223> n = A,T,C or G

<400> 463
tttttaaag tataaagtgt tttggaaaaa aaggaaaaan ntctatataa aaatctcttc 60
acatataaaa tcctgaagaa ggtgcaaggt gagacccagt gcgaggggcg tgctcagata 120
tgcagtgtgt gtgtgtgtgt gtgtgtgtgt gtatccgtgt gtacatgtgt gcacgtgtgt 180
gcgtatgtgt ctgtgtgtct gtgtgtgtgt gtgtgtgtgt gtgtgtgtgt ggtgggtgca 240
agtgcacgtg tggcccacag agggtgggga gaaagcttgg ctttttactt ccatccagga 300
gggaaggagg gcggctggtc ctccagcctg gagggtctgc agctgggcgg gacctctact 360
cagccaggct gttgcgcatc gactccttct cctggagggc ggccatggca agacgcaggt 420
gctccttcag ctgctcgatc tcccgctcag accgtgtctt gatgtggctc aactccacat 480
agacgtcctg gtactttccc naggtgaagc gcttgtcctt ctgcatcatc tggagctcgt 540
cccggaggca ctgcaccttc ct 562

<210> 464
<211> 553
<212> DNA
<213> Homo sapiens

<400> 464

gaattcgaac cccttcggga ccaggaaccc aggagagcat ggccacgctg cgccggcttc 60
gggaggcgcc gcggcactta ctggtttgcg agaaatccaa cttcggcaac cacaagtcgc 120
gccaccggca tcttgtgcag acgcactact ataactacag ggtttcattt ctcattcctg 180
aatgtgggat actatcggaa gaactgaaaa acctggtcat gaacactgga ccctattact 240
ttgtgaagaa tttacctctt catgaattaa ttacacctga attcatcagt acctttataa 300
agaaaggttc ttgctatgca ctaacataca atacacatat tgatgaagat aatactgttg 360
ccctgctacc aaatgggaaa ttaattttgt cactggataa agacacttat gaagaaactg 420
gacttcaggg tcatccatct cagttttctg gcagaaaaat tatgaaattt agttcagaag 480
aatcgacaat gatgtcatat ttttccaagt accaaattca ggagcatcag ccaaaagtag 540
cactgagccc gtt 553

<210> 465
<211> 383
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(383)
<223> n = A,T,C or G

<400> 465
tttttggaag aaaacacgat ttttaatttt tattttttat gggggacagn gatcatttgc 60
cccaacagcc atntgaagcc aatagtcctg attattaaaa atcacaaagt tatataaatg 120
ntctcctcct tttcgaaaac catgttcatt tttttcccaa naaacagggc tgtctgcaaa 180
gccttgaacg gacagngtaa cccatggagc taacttcggt tcatcaaagt agngacagan 240
atgttccaat agganacaga tcttntntgg aagtatgaag ccagngattg tacacaaata 300
agcttttgcc accactgtgc ttggctcagg acagcaatag gttgatatga aattattagg 360
ctcattattt aggncgacat tac 383

<210> 466
<211> 673
<212> DNA
<213> Homo sapiens

<400> 466
gaattcgaac cccttcgctc cctcctgcac gcaatggtgg cctatgatcc cgatgagaga 60
atcgccgccc accaggccct gcagcacccc tacttccaag aacagaggaa aacagagaag 120
cgggctctgg gcagccacag aaaagctggc tttccggagc accctgtggc accggaacca 180
ctcagtaaca gctgccagat ttccaaggag ggcagaaagc agaaacagtc cctaaagcaa 240
gaggaggacc gtcccaagag acgaggaccg gcctatgtca tggaactgcc caaactaaag 300
ctttcgggag tggtcagact gtcgtcttac tccagcccca cgctgcagtc cgtgcttgga 360
tctggaacaa atggaagagt gccggtgctg agacccttga agtgcatccc tgcgagcaag 420
aaggtagcgc ggaaccagct tctctgacgg cgctgctctt cgacccagcc caggccgcca 480
ctgaattttg tgtctgtaat ttttctttga cagacagatc cgcagaagga ccttaagcct 540
gccccgcagc agtgtcgcct gcccaccata gtgcggaaag gcggaagata actgagcagc 600
accgtcgtct cgacttcgga ggcaacacca agcccgaccg ggccaggcct gggtgatctg 660
ctgctgagac gcc 673

<210> 467
<211> 373
<212> DNA
<213> Homo sapiens

```
<220>
<221> misc_feature
<222> (1)...(373)
<223> n = A,T,C or G

<400> 467
tttttactgg aacgacagct tattntttaa taaaagtcag gggngtcagc agngtcactg 60
gtaanacatg atggcgctcc acgactgacc agcagcgctg ggaagggaca cgcanaaccc 120
accttccaac cacgcccaac acatnacana aatgcctgct cgtttgtttt gattcatata 180
caaagttaca aagtatttcc tgccccaaat tnttaacgaa aatgaaagaa aaccctanaa 240
tgcgggggtt ttacaagtat attagcccan aacatcctag gcagctgcnc gggccgcggg 300
tgcggcaggg cgcagggcaa cacccaaagc cccggccagc gcgaaacgga cgcaggcgca 360
tccccagccc tcc                                                    373

<210> 468
<211> 573
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(573)
<223> n = A,T,C or G

<400> 468
gaattcgaac cccttcgctg ctgtcctact tgatgcttgt cactgtcatg atgtggcccc 60
tngctgtgta ccaccgactg tgggatcgag catatgtgcg gctgaagcca gctctgcagc 120
ggctagactt cagtgtccgt ggctacatga tgtccaagca gagagagaga caattacgcc 180
gcagagctct ccacccagaa cgagccatgg acaaccacag tgacagcgaa gaggagcttg 240
ctgccttctg tcctcagctg gacgattcta ctgttgccag ggaattggcc atcacagact 300
ctgagcactc agacgctgaa gtctcctgta cagacaatgg cacattcaat ctttcaaggg 360
gccaaacacc tctaacggaa ggctctgaag acctagatgg tcacagtgat ccagaggaat 420
cctttgccag agaccttcca gacttccctt ccattaatat ggatcctgct ggcctggatg 480
atgangacga cactagcatt ggcatgccca gcttgatgta ccgttctccg ccaggggggct 540
gaggagcccc aaggccccac ctgccagccc ggg                              573

<210> 469
<211> 635
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(635)
<223> n = A,T,C or G

<400> 469
tcncgatcta gaactaggtt ggacaggctt gctcaagttt caccagagtt antactggcc 60
tctgttcgca gagtttttag ttnnacactg cagaattggc agactacacg gtttatggaa 120
gttgaagtag caataagatt gctgtatatg ttggcagaag ctcttccagt atctcatggt 180
gctcacttct caggtgatgt ttcaaaagct agtgctttgc aggatatgat gcgaactgta 240
agtatactgg agataatttt gaccataaat ttctgttttc agtataagct aatgggagtt 300
ccttaattgt tagagcttag tatatgttaa taccggggca ttttgatgtt gcaataaata 360
agaagaggtt tcctaacttt ttcctgatct agctggtaac atcaggagtc agttcctatc 420
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agcatacatc tgtgacattg gagttcttcg aaactgttgt tagatatgaa aagtttttca 480
cagttgaacc tcagcacatt ccatgtgtac taatggcttt cttagatcac agaggtctgc 540
ggcattccag ngcaaaagtt cggagcagga cggcttacct gttttctaga tttgtcaaat 600
ctctcaataa gcaaatgaat cctttccttg aggat 635

<210> 470
<211> 593
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(593)
<223> n = A,T,C or G

<400> 470
gaattcgaac ccttcggtat taacaaatat ntacatttct atttttataa tccataagga 60
tatgcctgtt ttaaataaca tacatattaa caatatctat caggaaaacc ctcaagacag 120
cttctagtta aaaccttngn tgctgtcctc tcaaactata tttataaaaa tttgctaggg 180
ccaaatccat acttgcagaa taattcatca aattttattt ttaagngaaa agtaaccttt 240
caggcatttc agcagcatac attgacaatc tagggtatat atgtatgtat gtttcttatt 300
gtatgtctat atatgtatgt ggggaggaca ggagtgaatg ttcacacact tttcttgcgt 360
actcaactaa attggagaat gtttctgaag aaaattggat gaaattagct gctgagattg 420
agtttctgcc ttaaaatctg aaacaaaaaa agggacaaat tgctggtang atctactgac 480
tgtngccatc accagaacac ttagtttctt cccagacatg aatttcctga caggctctga 540
gccagaaaca cactgtgggc gtgcatntgg gtcaccctgg atatgcctcc act 593

<210> 471
<211> 581
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(581)
<223> n = A,T,C or G

<400> 471
ttttttaat cangggacat ttattaacat gcttcaaaag tgaccaaagt gtccagccag 60
cacaatagcc gaggcaatca acgttctctt agtgtgtgat ctcgtccaaa acaccaaata 120
aataggttta ggaataacct caaataaatt gtaatttaac ttcgcccaaa attatacatc 180
ctctactgct cttccctgct cctgtaaaga tactagcggg aggggagaaa gctcaaatga 240
ctctgtaatt tagaattaca accagagaag aaatacttca agcacaataa agacgttcca 300
ttgaagagcg acattcattc tggaatgttt gttttgaaaa caactcttnt gggggaattc 360
aaaaggtact gaacaaagca acataaagta agttttgggt tgttttgcaa aataaaaata 420
tacaattgag tggaccagat ggcaaaaaca taccaattac aatctgaatg ctatatttaa 480
aacccttaaa ttctgaaggc ctgaatatca acaaacctat ttatgtttat gatcctaaaa 540
agacattaaa tattattaaa cccccaactt ccaaaacata g 581

<210> 472
<211> 674
<212> DNA
<213> Homo sapiens

```
<220>
<221> misc_feature
<222> (1)...(674)
<223> n = A,T,C or G

<400> 472
gaattcgaac cccttcggat ggcgtgatgt ntcacagaaa gttctccgct cccagacatg 60
ggtccctcgg cttcctgcct cggaagcgca gcagcaggca tcgtgggaag gtgaagagct 120
tccctaagga tgacccgtcc aagccggtcc acctcacagc cttcctggga tacaaggctg 180
gcatgactca catcgtgcgg gaagtcgaca ggccgggatc caaggtgaac aagaaggagg 240
tggtggaggc tgtgaccatt gtagagacac cacccatggt ggttgtgggc attgtgggct 300
acgtggaaac ccctcgaggc ctccggacct tcaagactgt ctttgctgag cacatcagtg 360
atgaatgcaa gaggcgtttc tataagaatt ggcataaatc taagaagaag gcctttacca 420
agtactgcaa gaaatggcag gatgaggatg gcaagaagca gctggagaag gacttcagca 480
gcatgaagaa gtactgccaa gtcatccgtg tcattgccca cacccagatg cgcctgcttc 540
ctctgcgcca gaagaagccc acctgatgga gatccaggtg aacggaggca ctgtggccga 600
gaagctggac tgggccccgc gagangcttg agcacaggta cctgtgaacc aagtgtttgg 660
gcaggatgaa aatg                                                   674

<210> 473
<211> 646
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(646)
<223> n = A,T,C or G

<400> 473
tttttcagn ggaaaataac ttttattgan accccaccaa ctgcaaaatc tgttcctggc 60
attaagctcc ttnttccttt gcaattcggt ctttcttcag nggtcccatg aatgctttct 120
tctcctccat ggtctggaag cggccatggc caaacttgga ggnggtgtca atgaacttaa 180
ggtcaatctt ctccanagcc cgccgnttcg tctgcaccag caaggacttg cggagggtga 240
gcacccgctt cttggttccc accacacagc ctttcagcat gacaaagtca ttggtcactt 300
caccatagng gacaaagcca cccanagggt tgatgctctt gtcanatagg tcatagtcag 360
tggaggcatt gttcttgatc agcttgccgt ccttgataag gtagccctgg ccaatcttat 420
aaatcttctt gttgatctca gtgcggtgat ggtagccttt ctgcccagcg cgtgccacag 480
agaaggctac acgagcagga tgccatgccc caatacaggc caccttgcgc aggcctcggt 540
gggtcttgcg gggcagcttc ttggtgtgcc aacgactggt gacccctttg tagcctttgc 600
ccttggtcac cccgatgacg tcgatcatct catcctgccc aaacac                646

<210> 474
<211> 544
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(544)
<223> n = A,T,C or G

<400> 474
gaattcgaac cccttcggca gcacactccc antcggccgc agcctgacac gccgcgcggc 60
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cccccagtct cccgcggctg ctcccccagg catggcacag ggcctcgcct cactatggca 120
gcagcacggc acagcacgct cgacttcatg ctcggcgcca aagctgatgg tgagaccatt 180
ctaaaaggcc tccagtccat tttccaggag caggggatgg cggagtcggt gcacacctgg 240
caggaccatg gctatttagc aacctacaca aacaagaacg gcagctttgc caatttgaga 300
atttacccac atggattggt gttgctggac cttcagagtt atgatggtga tgcgcaaggc 360
aaagaagaga tcgacagtat tttgaacaaa gtagaggaaa gaatgaaaga attgagtcag 420
gacaagtact gggcgggtga aacgattacc acccatagtg cgaggaggag ccatcgacag 480
atactggccc accgncgacg ggcgccttgg ttgaatatga catagaatga agtggtatat 540
gacg 544

<210> 475
<211> 578
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(578)
<223> n = A,T,C or G

<400> 475
gaattcgaac cccttcggga gaaccccatg ngggaacttc gcatccgcaa actctgtctc 60
aacatctgtg ttggggagag tggagacaga ctgacgcgag cagccaaggt gttggagcag 120
ctcacagggc agacccctgt gttttccaaa gctagataca ctgtcagatc ctttggcatc 180
cggagaaatg aaaagattgc tgtccactgc acagttcgag gggccaaggc agaagaaatc 240
ttggagaagg gtctaaaggt gcgggagtat gagttaagaa aaaacaactt ctcagatact 300
ggaaactttg gttttgggat ccaggaacac atcgatctgg gtatcaaata tgacccaagc 360
attggtatct acggcctgga cttctatgtg gtgctgggta ggccaggttt cagcatcgca 420
gacaagaagc gcaggacagg ctgcattggg gccaaacaca gaatcagcaa agaggaggcc 480
atgcgctggt tccagcagaa gtatgatggg atcatccttc ctggcaaata aattcccgtt 540
tctatccaaa agagcaataa aaagttttca gtgaaaaa 578

<210> 476
<211> 619
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(619)
<223> n = A,T,C or G

<400> 476
ggaattcgaa ccccttcgct cctgcctgtc cgccatgttt tcaggncggg nctggcttgg 60
tcttccccg taaggaaatg gccggggagc tccaggggac ccaggcgccg tcgcttcggc 120
ggagcctggg ctgaccagcc aggacagcgg ggtaaacccg aacaattctg cgcgaggtag 180
ggaggccatg gcgtccggca gtaactggct ctccggggtg aatgtcgtgc tggtgatggc 240
ctacgggagc ctggtgtttg tactgctatt tatttttgtg aagaggcaaa tcatgcgctt 300
tgcaatgaaa tctcgaaggg gacctcatgt ccctgtggga cacaatgccc ccaaggactt 360
gaaagaggag attgatattc gactctccag ggttcaggat atcaagtatg agccccagct 420
ccttgcagat gatgatgcta gactactaca actggaaacc cagggaaatc aaagttgcta 480
caactatctg tataggatga aagctctgga tgccattcgt acctctgaga tcccatttca 540
ttctgaaggc cggcatcccc gttccttaat gggcaagaat tttccgcttc taccttgctg 600
gatcttgcga aacactagt 619

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<210> 477
<211> 674
<212> DNA
<213> Homo sapiens

<400> 477
gaattcgaac cccttcgggg tgttcgactg ctagagccga gcgaagcgat gcctaaatca 60
aaggaacttg tttcttcaag ctcttctggc agtgattctg acagtgaggt tgacaaaaag 120
ttaaagagga aaaagcaagt tgctccagaa aaacctgtaa agaaacaaaa gacaggtgag 180
acttcgagag ccctgtcatc ttctaaacag agcagcagca gcagagatga taacatgttt 240
cagattggga aaatgaggta cgttagtgtt cgcgatttta aaggcaaagt gctaattgat 300
attagagaat attggatgga tcctgaaggt gaaatgaaac caggaagaaa aggtatttct 360
ttaaatccag aacaatggag ccagctgaag gaacagattt ctgacattga tgatgcagta 420
agaaaactgt aaaattcgag ccatataaat aaaacctgta ctgttctagt tgttttaatc 480
tgtcttttta cattggcttt tgttttctaa atgttctcca agctattgta tgtttggatt 540
gcagaagaat ttgtaagatg aatacttttt tttaatgtgc attattaaaa atattgagtg 600
aagctaattg tcaactttat taaggattac tttgtctgcc cacccctagt gtaaaataaa 660
atcaagtaat acat                                                   674

<210> 478
<211> 663
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(663)
<223> n = A,T,C or G

<400> 478
tttttttaag ctttcacaat ttttattaaa tcctagtcta nttgaacaat atctgatgtt 60
acagacatca tcccatggtg aacatgttta ataagtgaaa gcaagtcaga catctcatct 120
aagtcattat tttctgcaga ctaagcaata actacacaga acactatggg taaacaaaca 180
cctgctcagt tttcacacaa gccatgttgt ttatcaaatt agatctgcta atattgaata 240
cagtagattc ggtgattgta gttctcatat aagtatctta ttgagataac attttgacag 300
tttcactgac tttccaaata agcataccat aatcaaagaa aagaataaag agtgaagtaa 360
aaactgaaca tgaagagatt aagttattaa aggaaaatga agtaaataaa aagagtgaaa 420
aaccattggg ggtggaagtc aaacaagcct agacatttga ttggaagaga aaagatcaaa 480
tatgaagttc acaaaccaaa agtttataaa ctcaatgcaa tacaaatcct ttttattgta 540
aaagctgagt tgaaactaaa agatctataa aaactgttac ttttggcctt aaacagtacc 600
aactcttatg atcaaaaaag gccacacagt taagattgna ttacttgatt ttattttaca 660
cta                                                               663

<210> 479
<211> 673
<212> DNA
<213> Homo sapiens

<400> 479
gaattcgaac cccttcgaat gaagaactct ccagggatct agtgaataaa ctaaaaccct 60
acatgagctt cctgactcag tgccgtcccc tgtcagcgag catgcacaac gccatcaagt 120
tccttaacaa ggaaatcacc agtgtgggca gttccaagcg ggaagaggag gccaagtcag 180
aacttcgagc agccattgat cggtatgtgc aagagaagat tgtgctagca gctcaggcaa 240
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tttcacgctt tgcttaccag aagatcagta atggagatgt gatcctggta tatggatgct 300
catctctggt atcacgaatt cttcaggagg cttggacaga gggccggcgg tttcgggtgg 360
tagtggtgga cagccggcca tggctggaag gaaggcacac actacgttct ctagtccatg 420
ctggtgtccc agcctcctac ctgctgattc ctgcagcctc ctatgtgctc ccagaggttt 480
ccaaggtgct attgggagct catgcactct tggccaacgg gtctgtgatg tcacgggtag 540
ggacagcaca gttagccctg gtggctcgag cccataatgt accagtgctg gtttgctgtg 600
aaacatacaa gttctgtgag cgtgtgcaga ctgatgcctt ttgtctctaa tgagctagat 660
gaccctgatg atc 673

<210> 480
<211> 203
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(203)
<223> n = A,T,C or G

<400> 480
gaattcgaac cccttcgggg ggaggaagag gaggtggagg aggagggtga tgttgatagt 60
gatgaagaag aggangaaga tganganaac tcctcggagg gcttggaggc tgaggactgg 120
gcccagggag tagtggaggc cgntggcagc ttcggggctt atggtgccca ggaggaagcc 180
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<210> 481
<211> 482
<212> DNA
<213> Homo sapiens

<400> 481
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tcattctaaa gtcatggact tcactttcgg caacaaaact aaataaggat ggaacattta 360
ttgaatgaaa aatgcacttt tgtttttcca ttttttaaa taataaaaat cagacaaaca 420
gaaaaaaaaa aaaaaaaggg cggccgctcg agtctagagg gcccgtttaa acccgctgat 480
ca 482

<210> 482
<211> 505
<212> DNA
<213> Homo sapiens

<400> 482
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gtgattggat tgccagactc tgcctgctgg caaaaggatg agctgtagaa gctgaagtcc 240
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taaaacctga tgaggtagtc tgtagtcaca ctgggtagag gtagaggcaa ccacaaaatt 420

attcttaaga atgcctccca ggcgcctgga agatgaaact ttctggtgaa tatgagctca 480
tggtaaaaat ttaggtcgga tgcag 505

<210> 483
<211> 501
<212> DNA
<213> Homo sapiens

<400> 483
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gagaatcctg gaactactat gctaggaaat ttaaagctgc atggtctgtc ttgttttcat 480
ttaattattg tgaataccta g 501

<210> 484
<211> 501
<212> DNA
<213> Homo sapiens

<400> 484
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actgtgcttc cctgcagaca c 501

<210> 485
<211> 504
<212> DNA
<213> Homo sapiens

<400> 485
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cattatatat catataaaat aaacctttaa atattgaaat gaaaagataa aaatacatac 240
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caatttacct tctgctcaga tcatggtgta cgatatcaca acctgcctag aataactctc 360
cttttctgaa ccatttattc actactttg tcttccaatt aaatattagc ctgacttcaa 420
atatcataca ttagtttcct ttgtttatgt aattgaatta tataacatat attcattaga 480
gcctattttt tttaaaattt ttgt 504

<210> 486
<211> 501
<212> DNA

<213> Homo sapiens

<400> 486
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caacctgcac aaccccgccc tgttcgaggg ccggagccct gccgtgtggg agctggccga 420
ggagtatctg gacatcgtgc gggagcaccc ctgcccccctg tcctacgtcc gggcccacct 480
cttcaagctg tggcaccaca c 501

<210> 487
<211> 501
<212> DNA
<213> Homo sapiens

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<400> 487
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caacccctat aaagggtagt tcttttaaaa aaaatttctt tattggcaac aacataaaag 180
atatgaaaga atcactcata atttatcagc ataacatagc tattctcatt tttgcaattg 240
actttttagt tcttgaccaa atgtaatttt tattagttgt gattaactga ttttgtgctt 300
tttttaaaaa aaaaaaaaac ctagaataag acatttgttt tgttaattat tataaatgac 360
tgtattcatt ctgtttatgt accataattt tggatgttcc tacgatgtta aacttttagg 420
ttgtttttaa ttgtttgttc ttatagacaa ctctgtaagg gnttttaact gcttttatca 480
ggagaatgtc aaagaagtcc t 501

<210> 488
<211> 148
<212> DNA
<213> Homo sapiens

<400> 488
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gaacccttcg ctcaagtcag cctggagt 148

<210> 489
<211> 501
<212> DNA
<213> Homo sapiens

<400> 489
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ggagccactc tacggattca tggtgtaaat tctggatctt ctgaaggagc ccaaccaaat 180
actgaaaacg gagtccctga aataacagat gcagccacag atcagggccc tgcagaaagc 240

ccacccactt ccccttcatc agcctctcgg ggtatgctgt ctgccatcac caatgtggtt 300
caaaacacag gtaaaagtgt cttaactgga ggccttgatg cgttggaatt catcggcaag 360
aaaaccatga atgtccttgc agaaagtgac ccgggcttta agcggaccaa gacgctcatg 420
gagagaactg tttccttgtc tcagatgtta agggaagcta aggagaagga gaagcagaga 480
ctggcacagc agctcacgat g 501

<210> 490
<211> 482
<212> DNA
<213> Homo sapiens

<400> 490
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ccaaatgctg gaaggaggac tttagggcag agttcactaa ggaggcttgt gcttatagat 120
cagtgggcct gaaagaagtt tctctaggtt ctggttgtgt gctgtacgag gtgtaggtag 180
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tgtacaggca gcatggagaa actaagacag agtgtcctgc ccaagtgatg gcactgggga 300
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ttaaggctct tggtgggaag gtgggaggtg ttttcagcat gagatagggt tcaggctgtg 480
aa 482

<210> 491
<211> 483
<212> DNA
<213> Homo sapiens

<400> 491
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tttacagcac ttcgcttttc taaccacgaa cagtgctcgt tcgttcgcag ggccagcaag 120
gagagccccg cccccgcccg ccgcccgccg cccgccgccc gccgcctttg gatcccgcgg 180
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gcgcgagaag cggggctgcg gcttgtactg atcaacacgc cccccgggaga ccaagagaag 420
ggggaaatgg ggctgggggc cgtccccggg agacaggcgg ccttccgaga gggactggag 480
cag 483

<210> 492
<211> 266
<212> DNA
<213> Homo sapiens

<400> 492
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aatggaccaa atgtgccaca cgctcgctct tttttacacc cagtgcctct gactctgtcc 180
ccatgggctg gtctccaaag ctctttccat tgcccaggga gggaaggttc tgagcaataa 240
agtttcttag atcaatcaaa aaaaaa 266

<210> 493
<211> 483
<212> DNA
<213> Homo sapiens

<400> 493
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cagcagcgaa ggggaatggg ggcggcggtg gcagggccgg ggccggggac gccagcggca 120
cgcggaagaa gaagggcccg gggcccctgg ccacggcgta cctggtcatc tacaatgtgg 180
tgatgacagc cgggtggctg gttatagcgg ttggtctggt ccgagcatac ctggctaagg 240
gtagctacca tagcctttat tattcaattg aaaagccttt gaaattcttt caaactggag 300
ccttattgga gattttacat tgtgctatag gaattgttcc atcttctgtt gtcctgactt 360
ctttccaggt gatgtcaaga gtttttctaa tatgggcagt aacacatagc gtcaaagagg 420
tacagagtga agacagtgtc ctcctgtttg ttattgcatg gacgatcacg gaaatcatcc 480
gtt 483

<210> 494
<211> 301
<212> DNA
<213> Homo sapiens

<400> 494
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ttctgaagct gggtggttca cacctgtaat cccagcactt tgggaggatc tcttgagccc 180
aggagttgga gactagcctg gtctacaaag tgagactctg tttctacaaa aaaataaaat 240
aaatagttgg gtgtggtggt atgcgcttgt ggttccagct acttgggagg atgagggagg 300
a 301

<210> 495
<211> 496
<212> DNA
<213> Homo sapiens

<400> 495
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gccccaccgc agccgccgct ccctgaggcg cgggaggccc gcgccccgcg gctcgctgtg 120
cgtgggaggg cgcgagcgaa cgcgggcgag gagcggccga gccgctgaag aggagctggg 180
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gggattcttc gcccaaaatg gagttaatcc tgactgggag aagaaagtaa ttgagtattt 360
taaggaaaag ctgaaggaaa ataatgctcc taagtgggta ccatcactga acgaagttcc 420
ccttcattat ttgaaaccta atagttttgt gaaatttcgt tgcatgattc aggatatgtt 480
tgaccctgag ttttac 496

<210> 496
<211> 494
<212> DNA
<213> Homo sapiens

<400> 496
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gcatggttag aaaacggcga ggacagccag ggagggaag ggcctctagg gaactttgca 120
ctttctatac ctttgtacta tgcactgccc tattgattct acacccaata atgatattac 180
ttgaacccat ctgtaagaaa ctgcttcgga aattcatttg tgtgtatgta aataacacaa 240
catagaaaca ggaagggaaa aaagtctgca gtaatgcacg tatttttttt ctttcctgtt 300
tattttcggt tttgctttaa gtccttttat ttttaattcc ctttttgttt ttctttttgg 360
gttttggttc ctttgggtt tatgggtgcc ctgatactcc agcagagatc agaaggctac 420

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agataataac agtt                                                   494

<210> 497
<211> 184
<212> DNA
<213> Homo sapiens

<400> 497
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atgtaccggc tcctgtcagc agtgactgcc cgggctgccg cccccggggg cttggcctca 120
agctgcggac gacgcggggt ccatcagcgc gccgggctgc cgcctctcgg ccacggctgg 180
gtcg                                                              184

<210> 498
<211> 471
<212> DNA
<213> Homo sapiens

<400> 498
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atacttagtg atatactttg cttgaaaatc actcagcaaa gtagttcaca tgatgtgtat 120
catatttgaa gtgtggtttt tctcaaaatc attgacttta aggagctcat ttctgaacaa 180
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taaaacaaaa ttgattttaa aatttttatg taagtcattg tgtctatgat gccactttta 360
aaaggaaaat gcaattgcgt aatggcttat atccttattt aatgtaccta tttgtgttct 420
aataattgtt tgaatgtttt attcagctta aaactttacc atgaagtcat a          471

<210> 499
<211> 478
<212> DNA
<213> Homo sapiens

<400> 499
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cccgcagggc cgctccgcgg ggcagcgcag ccaggccggc tatggtcccg gggctcccgc 180
cgccccccag gtgcccggga cccgccaggc cggtgcgcga gggtcacccc acctccccgc 240
gcggtcccgg cccctggctc ccagctgccg gcgaccgctg accgagcccg gcgccccagg 300
aggaggaaga aaccagggcc ccgttccctc ccgaggacgg cggcgcttca tcccgcagcc 360
cagaggtctc ggctccctcc ggcacccgcc cggcccggct gctcccggct cctcccggcc 420
atggggagct gcgcgcggct gctgctgctc tggggctgca cggtggtggc cgcaagga   478

<210> 500
<211> 495
<212> DNA
<213> Homo sapiens

<400> 500
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gtgctccccgg cggtggacgg cagcatctgg cgcctgactt tctacaacaa cgtcaacgcc 180
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gcccagctgg gcagtgccca cttctggggg atgatgacgc tgggcggcct gtttggcttt 300
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tcgggcacgg ccaaggcctg tgcccagaca gtgctggccg tgctctacta cgaggagacc 420
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tgggtcaggg gctgg 495

<210> 501
<211> 494
<212> DNA
<213> Homo sapiens

<400> 501
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tttgaagaat accagtttca agcagtatta agagtaaatg ctggggctct cagtgcacat 420
aggtatttcc gagataatcc ttccgaatta tgctgtatca ttgttgatag tggatattcc 480
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<210> 502
<211> 479
<212> DNA
<213> Homo sapiens

<400> 502
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aagaaataat aaaataaaaa agcactttag gttattttat ctttaacccg attgctgcaa 120
tttcttttgt gtgtatatat acatatatat actttccaca aagttttatt ttttgctcag 180
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atgcaagcct tccctgtgtg ccccagggcg ccccctcagg ctctctgaag aactgctgtg 420
ggtcctgttt tctgctgact gttgaggccc tttttcatca cttcttggtc tctcgccat 479

<210> 503
<211> 451
<212> DNA
<213> Homo sapiens

<400> 503
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gctccggact cggatccctt ccctgaaggg ccgctcttaa agctgctacc cttagacgct 120
agagaccggg gcacccagcg ctgccgcctg ggcccggccg ccctccacgc cctgggcgcg 180
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gtgccctgtc cgcccctgcg gcgcgtcgcc gtgtggccgg tgttgcgaga gcgggcaggc 420
gcgcccggtg cccggaatac agccgcggtg c 451

<210> 504
<211> 462

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<212> DNA
<213> Homo sapiens

<400> 504
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tgtttgtttt aatttttgct agattgatat taaaaactca tgtggaggaa ctcaaggaat 120
gtttagaaga ccaaaagtcc ccaatgacag gaacaaaagc aaccaatttt taactttctc 180
ttctcattcc tgttttcatt gatttcccac atgtagtcct tttgctcagg aagtctttgg 240
ggaaattaag gatctttgaa gctctgaaat aggtgatcag gttagtggtg tctgtcagct 300
gtctaagagg ttggaaaatg aactactcaa gatagtcacg aaaatactga aagtttgatt 360
tttctttcca tatttgaatt aatttttct gtttgactgg aaggggtttt tgtataacta 420
aaacctcagc gcataaagga gatttaaaag gagcacatga tt                   462

<210> 505
<211> 136
<212> DNA
<213> Homo sapiens

<400> 505
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agctggcaga cttctaggag gtcctgtctg aggtagaatc agaaatggct tccctccttc 120
tcccataaaa aaaaaa                                                 136

<210> 506
<211> 466
<212> DNA
<213> Homo sapiens

<400> 506
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tgcggagctg gggcagggg taatggggcc agggggtaat ggcaggtgag gccatggcct 120
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gggtgcagcc tccagctttc tgcttacaga gcaggacctg caggagctcg ctgactgcct 420
gcacagtgga aggaagacct gtttctttta ctttccttga ggagaa                466

<210> 507
<211> 101
<212> DNA
<213> Homo sapiens

<400> 507
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ctgaaagctc taaataaaca gatacattca cattcaaaaa a                     101

<210> 508
<211> 242
<212> DNA
<213> Homo sapiens

<400> 508
gacaatgcaa gtaacctcaa atgagagtgt ggaaaggcgg gaaagcagcc agagcttcat 60
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tgttatgaaa aaagagtgaa atgtgctctg ttgaagagtt gaagaatgaa caaaggatat 120
ttagtttgaa tggaagctca gtaatgagaa atgagaatgg ttgagttctt aaaagaagca 180
agtaaagaag aggatttgtg ggctactatt ctcattcagt gaatctcatw ccacccttgc 240
ct                                                                242

<210> 509
<211> 101
<212> DNA
<213> Homo sapiens

<400> 509
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tgcaataaga aattggaaaa agggagcaaa ggcgaagggg y                     101

<210> 510
<211> 461
<212> DNA
<213> Homo sapiens

<400> 510
gcaggttcgg gaccatgagt tggattcctt ttaagattgg gcagcccaag aaacagattg 60
tgcccaaaac agtggagaga gactttgaaa gggagtatgg aaaacttcag caccatgtca 120
aaatctgccg tgaagatatc cttggactta ctctccaatc ccctctgtga gcaagaccag 180
gaccttctga acatggtgac ggccctggac acggccatga agcggatgga tgccttcaat 240
caggaaaagg tgaaccagat ccagaagact gtgatcgagc ccttaaaaaa gttcggcagt 300
gtcttcccga gcctcaacat ggctgtgaag aggcgggaac aggccttgca ggactacagg 360
aggctgcagg ccaaggtgga gaagtatgag gaaaaggaga agacggggcc agtgctggcc 420
aagctccacc aggcacgaga ggagctgcgg cctgtgcggg a                     461

<210> 511
<211> 461
<212> DNA
<213> Homo sapiens

<400> 511
ggctttctga tatttctaaa attgacctgg aatcaaccat tgacatgtcc tgtgctaaat 60
atgaattcac tgatgccctg ctgtgccatg atgatgagct ggaagggcgc cggattgcct 120
tcatcctgta cctggttcct ccctgggaca ggagcatggg tggtaccctg gacctgtaca 180
gcattgatga acactttcag ccgaagcaga ttgtcaagtc tcttatccct tcgtggaaca 240
aactggtttt ctttgaagta tctcctgtgt cctttcacca ggtgtctgaa gtgctgtctg 300
aagaaaagtc acgtttgtct ataagtggct ggtttcatgg tccatcattg actcggcctc 360
ccaactactt tgaacccccc atacctcgga gccctcacat cccacaagat catgagattt 420
tgtatgattg gatcaaccct acttatctgg acatggatta c                     461



<210> 512
<211> 686
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
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<222> (1)...(686)
<223> n = A,T,C or G

<400> 512
actgacctga aggagaccta agagtccttt cccttttga gtttgaatca tagccttgat 60
gtggtctctt gttttatgtc cttgttccta atgtaaaagt gcttaactgc ttcttggttg 120
tattgggtag cattgggata agattttaac tgggtattct tgaattgctt ttacaataaa 180
ccaattttat aatctttaaa tttatcaact ttttacattt gtgttatttt cagtcagggc 240
ttcttagatc tacttatggt tgatggagca cattgatttg gagtttcaga tcttccaaag 300
cactatttgt tgtaataact tttctaaatg tagtgccttt aaaggaaaaa tgaacacagg 360
gaagtgactt tgctacaaat aatgttgctg tgttaagtat tcatattaaa tacatgcctt 420
ctatatggaa catggcagaa agactgaaaa ataacagtaa ttaattgtgt aattcagaat 480
tcataccaat cagtgttgaa actcaaacat tgcaaaagtg ggtggcaata ttcagtgctt 540
aacacttttc tagcgttggt acctcgccgc gaccacgctg gaattccgga agggcctgtc 600
ctangatcca gtgtggtgga attctgcaga tatccagcac agtggcggnc gctcgagtct 660
aaanggcccg tttaacccgc tgatca 686

<210> 513
<211> 429
<212> DNA
<213> Homo sapiens

<400> 513
catgaacgac accgtaacta tccgcactag aaagttcatg accaaccgac tacttcagag 60
gaaacaaatg gtcattgatg tccttcaccc cgggaaggcg acagtgccta agacagaaat 120
tcgggaaaaa ctagccaaaa tgtacaagac cacaccggat gtcatctttg tatttggatt 180
cagaactcat tttggtggtg gcaagacaac tggctttggc atgatttatg attccctgga 240
ttatgcaaag aaaaatgaac ccaaacatag acttgcaaga catggcctgt atgagaagaa 300
aaagacctca agaaagcaac gaaaggaacg caagaacaga atgaagaaag tcaggggggac 360
tgcaaaggcc aatgttggtg ctggcaaaaa gccgaaggag taaaggtgct gcaatgatgt 420
tagctgtgg 429

<210> 514
<211> 346
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(346)
<223> n = A,T,C or G

<400> 514
aaaactttct ctacttattt agttttntcc tctgagttca accgctgctg gattcgtttg 60
gcataacttt gtgccatgga gttaatgata gataggatga agtaacacac catgacaacg 120
accaactttt caaacatcca ggacaaccag ttttctccct gtggtgtgcc catttcgctt 180
ttgtggtgaa gcttctgccg ttgagcctcc aggtactcct gaaatggctt ctgcagagat 240
ggacctatgc cggggacagc actggaagca gggtacagta gcccaaagaa aaagacacat 300
ttgggaagaa aagcaggaaa aacgttaaag aaaatgtact taccac 346

<210> 515
<211> 549
<212> DNA
<213> Homo sapiens

<400> 515
ctgaccagga ctgtgaagat gcggttccgc tgcgaagatg gggagacatt ttccaggaac 60
gtcatgatga tccagtcctg caaatgcaac tacaactgcc cgcatgccaa tgaagcagcg 120
tttcccttct acaggctgtt caatgacatt cacaaattta gggactaaat gctacctggg 180
tttccagggc acacctagac aaacaaggga gaagagtgtc agaatcagaa tcatggagaa 240
aatgggcggg ggtggtgtgg gtgatggaac tcattgtaga aaggaagcct tgctcattct 300
tgaggagcat taaggtattt cgaaactgcc aagggtgctg gtgcggatgg acactaatgc 360
agccacgatt ggagaatact ttgcttcata gtattggagc acatgttact gcttcatttt 420
ggagcttgtg gagttgatga ctttctgttt tctgtttgta aattatttgc taagcatatt 480
ttctctaggc ttttttcctt ttggggttct acagtcgtaa aagagataat aagattagtt 540
ggacagttt 549

<210> 516
<211> 382
<212> DNA
<213> Homo sapiens

<400> 516
ccgctcgtca gactccagca gccaagatgg tgaagcagat cgagagcaag actgcttttc 60
aggaagcctt ggacgctgca ggtgataaac ttgtagtagt tgacttctca gccacgtggt 120
gtgggccttg caaaatgatc aagcctttct ttcattccct ctctgaaaag tattccaacg 180
tgatactcct tgaagtagat gtggatgact gtcaggatgt tgcctcagag tgtgaagtca 240
aatgcatgcc aacattccag ttttttaaga agggacaaaa ggtgggtgaa ttttctggag 300
ccaataagga aaagcttgaa gccaccatta atgaattagt ctaatcatgt tttctgaaaa 360
tataaccagc cattggctat tt 382

<210> 517
<211> 323
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(323)
<223> n = A,T,C or G

<400> 517
acgagcgtag gacgatgctt ctcttntgtc agcctgcaac tgagtcagga ttgaatactt 60
ggaccccagg tctggagatt gggatactgt aatgcttctt tgttattata acataaaagc 120
accactgttc tgttcatttc ctagctgttc taattaagaa aactattaag atgagcaacc 180
acatttagaa atgtttattg acaggtcttt tcaaataatg cttttctaat taatagccaa 240
agatttcata tctaactttg taaccagaat tatacagtaa gttgacacca cttagattta 300
aaggcagaca gttttgcttt agt 323

<210> 518
<211> 605
<212> DNA
<213> Homo sapiens

<400> 518
ctggataccg aggctggggc cccacactgt ggaacaaacc cacagcttgc tcaggatcca 60
tcccagaatc agcagacatc aaatccaacg cacagttcag aagatgtgaa gccaaaaacc 120
ctcccgctgg ataaaagcat taaccatcag atcgagtctc ccagtgaaag gcggaagtct 180

```
ataagtggaa agaagctgtg ctcttcctgt gggcttcctt tgggtaaagg agctgcaatg 240
atcatcgaga ccctcaatct ctattttcac atccagtgtt tcaggtgtgg aatttgtaaa 300
ggccagcttg gagatgcagt gagtgggacg gatgttagga ttcgaaatgg tctcctgaac 360
tgtaatgatt gctacatgcg atccagaagt gccgggcagc ctacaacatt gtgacacggc 420
tttcaagctt ccggatcact caccatttct ttactgagag tgtcccctgg caactgctta 480
acaaaatccc aagctcaggg gcttctcagc atttacctaa tttctgaaag gctcttctga 540
aaggtggtat ctgttctttc gtagcacagt gtttatgttt ttcctgttta ttggtttggt 600
ttttt                                                             605

<210> 519
<211> 462
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(462)
<223> n = A,T,C or G

<400> 519
ctgctggtca tgnccttggc agtcttttgt gcaaaataag gcatattnga gctccacatt 60
aaccttgcgg caggcgncta cttgctctgc atgctgtanc agngcacgtc ctccttcccc 120
ttggtggtgt agcctgngan aggctgccca tacttatcca cacaccagca naagccccgc 180
ttcctgcctt tggaagggcg acactgcttt ttcttataaa atcccttctt gtcacagttg 240
ggaatgtgna cacccctggg actcagcaca ttgaggaact tcaagtgatt cagtgtgnct 300
tccatttctc tacggcangn accatattct gtctcccgct tggactcgga ggagaagttc 360
tgggtatctg tgctctgaga ctcgtagtca actttgtagc gctggctgnc tttagcatgc 420
cctttcttga tgatgantat ctttgaatgg agggggtgga ac                    462

<210> 520
<211> 565
<212> DNA
<213> Homo sapiens

<400> 520
actcgtaata aatatgcatc cggaaacaag ataaaaggct acacctcgtc aggcatccta 60
caaaaatgtc tcaagtttta tatactctgc agcatttctg tgcgggggca gaaggggctg 120
ttgtgtattt tctgaagtgc tgtgacaaaa ggtcctttca catttctttg gagcattttt 180
gaaattgctt aactataatt aaacaactta agaaaagtaa caccaagctt taaagccatt 240
tttgctttgc tgtcattggt ccttatccaa tacagatcaa catatcatcc agcacagcca 300
agcacccact gaggccaagc agccttgtgg gacatgggcc ctgtcagagc aggccctact 360
ttcagttaaa tactttggag agtccaggat tctgtctctc tccctcaaca agattaatgc 420
cataagggaa gttgcaagcg tgttagaaac atttttaacc tgaaagtaaa gtgaacagaa 480
atattttttt ttccgagacc tctgctatgc accataatat taccatatca gggtttttag 540
cttcaaagtt gaaaaacaga ttggt                                       565

<210> 521
<211> 127
<212> DNA
<213> Homo sapiens

<400> 521
acatggctga cgtcaccgtc cagtgcaaaa tcaaaaaaga aagaaagaaa aaccccaaag 60
aaagaggatt tttcagtgga gaacatggtg ggctgattag gcttctatta gattacattc 120
```

```
atttcac                                                            127

<210> 522
<211> 642
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(642)
<223> n = A,T,C or G

<400> 522
actatgtttc gtaaattaaa taggtntggc ccagaagacc cactcaattg cctttgagat 60
taaaaaaaaa aaaaaaaaag aaagaaaaat gcaagtttct ttcaaaataa agagacattt 120
ttcctagttt caggaatccc ccaaatcact tcctcattgg cttagtttaa agccaggaga 180
ctgataaaag ggctcagggt ttgttcttta attcattaac taaacattct gcttttatta 240
cagttaaatg gttcaagatg taacaactag ttttaaaggt atttgctcat tggtctggct 300
tagagacagg aagacatatg agcaataaaa aaaagattct tttgcattta ccaatttagc 360
aaaaatttat taaaactgaa taaagtgctg ttcttaagtg cttgaaagac gtaaaccaaa 420
gtgcacttta tctcatttat cttatggngg aaacacagga acaaattctc taagagactg 480
tgtttcttta gttgagaaga aacttcattg agtagctgtg atatgttcga tactaaggaa 540
aaactaaaca gatcaccttt gacatgcgtt gtagagtggg aataagagag ggctttttat 600
tttttcgttc atacgagtat tgatgaagat gatactaaat gc                     642

<210> 523
<211> 244
<212> DNA
<213> Homo sapiens

<400> 523
ctgaaggagc tgatccagaa ggagctcacc attggctcga agctgcagga tgctgaaatt 60
gcaaggctga tggaagactt ggaccggaac aaggaccagg aggtgaactt ccaggagtat 120
gtcaccttcc tgggggcctt ggctttgatc tacaatgaag ccctcaaggg ctgaaaataa 180
atagggaaga tggggacacc ctctgggggt cctctctgag tcaaatccag tggtgggtaa 240
ttgt                                                               244

<210> 524
<211> 407
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(407)
<223> n = A,T,C or G

<400> 524
acgttagtgg tgatgtcacc caccctnnng ctggggccga ggatgctctc attgtgcact 60
gcgtagatga ctctggccac tggggcagag gtggtttatt tacagctctg gaaaagcgat 120
ccgctgagcc aagaaaaata tatgagctgg ctgggaaaat gaaagacctg agtttgggag 180
gtgtcctttt atttcctgtt gatgataaag aatcaagaaa caaagggcaa gatttgttgg 240
ccttgattgt ggctcagcat cgtgatcgtt ccaatgtcct gtctggcatt aagatggcag 300
ccctagaaga gggcctgaag aagatatttt tagcagcaaa aaagaagaaa gcaagtgttc 360
```

```
atcttccacg tattggacat gccacgaaag gttttaactg gtatggt                407

<210> 525
<211> 276
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(276)
<223> n = A,T,C or G

<400> 525
acacaggagg caacgtgttt cacatnatag acttcacttc caactccttg gaatgttcat 60
ttctttggct tacaggagag actagacagg aaggccaggc aatgcttagg caactaaaat 120
gaggttgggg gtaatgctaa cgtcaccctc acagggatgg ccacggggac tgttattcgc 180
aagctggttt tctagacctg ttagctggaa gcatggtgag caccatttct ggacgctcag 240
gccgtgtcgg gcttcagtca tctccaccac acaggt                            276

<210> 526
<211> 288
<212> DNA
<213> Homo sapiens

<400> 526
acaattaccc accactggat ttgactcaga gaggaccccc agagggtgtc tccatcttcc 60
ctatttattt tcagcccttg agggcttcat tgtagatcaa agccaaggcc cccaggaagg 120
tgacatactc ctggaagttc acctcctggt ccttgttccg gtccaagtct tccatcagcc 180
ttgcaatttc agcatcctgc agcttcgagc caatggtgag ctccttctgg atcagctcct 240
tcagctcctt cttgctcagg gtgtgcttgt caccctccct gccggagt               288

<210> 527
<211> 412
<212> DNA
<213> Homo sapiens

<400> 527
actttgagct tattgttttt attctgtatt aaatattttc agggttttaa acactaatca 60
caaactgaat gacttgactt caaaagcaac aaccttaaag gccgtcattt cattagtatt 120
cctcattctg catcctggct tgaaaaacag ctctgttgaa tcacagtatc agtattttca 180
cacgtaagca cattcggacc atttccgtgg tttctcatga gctgtgttca cagacctcag 240
cagggcatcg catggaccgc aggagggcag attcggacca ctaggcctga aatgacattt 300
cactaaaagt ctccaaaaca tttctaagac tactaaggcc ttttatgtaa tttctttaaa 360
tgtgtatttc ttaagaattc aaatttgtaa taaaactatt tgtgtaaaaa aa          412

<210> 528
<211> 489
<212> DNA
<213> Homo sapiens

<400> 528
aaatgcaaaa agtcaaagta ggtaacaggt tggtaattaa agtgtcagga agactggaag 60
aggcaaaaat caagcagagt tccaataagt gtatgaaaaa aaaaatcata actgaaggtt 120
taagaaaagt ccccaaaggc agaatcacaa tatgagcagg aggaataaaa agcttttgga 180
```

```
tataccaggc agctttctgt acgactcagg tttacaggtg aaattcctca gtttgagttc 240
agaagaattt gaacttattc cagcaaaata cttcaatctt tttattactg cctcctcccc 300
catcttcttt ctgggcaaag ggatgcttgg attaggtcca aagctcctgg caggggaggg 360
ggccatgtgt cacagcataa cagacggttg caagtgcttt actgagcagg ggtcaggttt 420
gcagcaactc tgataggctc acacaatggc ctccatttta cagcccctcc ttggaggccc 480
actgatcag                                                         489

<210> 529
<211> 631
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(631)
<223> n = A,T,C or G

<400> 529
acttgcctaa agtttttata tctgnntctt ctgctgtaaa tcttcccttc ataaatgaaa 60
atttaataa aatcaactat gtggaaatat ataattaaag gaattcacta actgtgattt 120
tcataattta gggacattct cttctagtaa gcatggtgca ttatttacta gagatataat 180
atgcattaaa acaaaaaatg ttttctatca tcatagaaaa gtttgaggtc cagggataat 240
catctctgga tacattattt cctaccgtcg tggtacacac tgaacacatt tgaggcttat 300
gactggttct tttacttaca aatattgttt agacacattt tcaaatgtca caccaatcaa 360
taataataag gaatggattt tatctatatt gacagttctt tcaaccttaa gagtgaactg 420
ctacaggtaa gattcaatca catttttcag gagaaagcta ttgagaccaa tatgctttgg 480
ttatctaata ggggtggaat gacttataat gctatttact ccaggcaaag agaaaataca 540
acagacatag gatcttgatt tcaacgtagt tctcctccat gtgcatttct ctgtccgttt 600
aggcaatgcc aactggtcca ccagtgaaca t                                631

<210> 530
<211> 316
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(316)
<223> n = A,T,C or G

<400> 530
acacatttaa atgactcacg agantnaagt tttttcaaa tatattaaga tcacaccacc 60
ttgttgttta tcgaaagata ttcaaggaga aagatctgac tctccaaact gcatctgaga 120
ttgccacttt aaacagacct catttcaaac atgcaacaac gccactggta ataaagcttt 180
ggaatgggtg ctcattctat tatttcacta caaacagcat agaaagcaag agaagttggg 240
aatttattct aaaatagaat ggaggttgtc atctacagca gcactcctca ctcctctgtt 300
gccattttta gcaagt                                                 316

<210> 531
<211> 296
<212> DNA
<213> Homo sapiens

<220>
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```
<221> misc_feature
<222> (1)...(296)
<223> n = A,T,C or G

<400> 531
aaagtatcat ttatttgaaa aacatacatt atcattntgt ttttgatatt tgataatgaa 60
aaaaatcttt gnttgtttat ttctgaaaaa gaactgtatt tagngattat tttagatagt 120
gatattatan cattcatctg tgtgtaaatt atttcatata gggaagagtt ctgatctgta 180
cctatggttc ttattgaaaa caacattgga tgtgcatttc tgtgatgtta tgaatacatt 240
tctactttat tttgaaacat ttgccaaact aaatactgta acactgtata acattt     296

<210> 532
<211> 266
<212> DNA
<213> Homo sapiens

<400> 532
acatatgcac caaattccat tttagaagtt tccatatcat tttcatagaa aacaaagttt 60
gaaaacaagt aacatttaaa cacagcacgg tattctacca caactgaaac ttttttcttc 120
ttcttcttta caggactcaa caaaatctaa aaatgaacta tgctgtagat ttacctcatg 180
caaagatctt tatgttatct ctgaaaatga aaaggatggc cttttaagca cattttactg 240
ttttatacta ttatggcaac ttgtgt                                      266

<210> 533
<211> 289
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(289)
<223> n = A,T,C or G

<400> 533
actcagaagt cacttttaat atcancgaca gaaatatttc actaattcaa ctgaggcaaa 60
tttcctttct agacaaagga cctagaaatt gagcatgcaa aacatccatc cattcattca 120
ttcaaataat tagccaattt taccgtcatt taattccacc agaagcaaat actagaatat 180
ctagaagtag tttgggtaaa gaaacattta cattttaata ttgtgtaatg tcataaattt 240
ggggctaaaa taacaccagg tcaaatttga tccctttgta tgtgagggt            289

<210> 534
<211> 293
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(293)
<223> n = A,T,C or G

<400> 534
aaaataaaag gttctttaca agatgatacc ttaattacac tcccgcaaca cagccattat 60
tttattgtct anctccagtt atctgtattt tatgtaatgt aattgacagg atggctgctg 120
cagaatgctg gttgacacag ggattattat actgctattt ttccctgaat tttttccctt 180
```

```
tgaattccaa ctgtggacct tttatatgtg ccttcacttt agctgtttgc cttaatctct 240
acagccttgc tctccggggn ggttaataaa atgcaacact tggcattttt atg        293

<210> 535
<211> 408
<212> DNA
<213> Homo sapiens

<400> 535
acttgaacac ttaaagagaa aaactctaaa taaagtcata gaggggatgg tagagatgac 60
cacagaaaat gaccacggag agtattatga agattgcaag attagacatt gatgatgtaa 120
attactccct ttctagataa aataatccat agatgtttat gaatcatatt tgtatgatta 180
ttgctgttac tattattttg acacattatt tattattatt gttgtcacta ttattaccat 240
taagatagca ggcgtaaaac tgtactggtt ccttcagtag tgagtatttc tcatagtgca 300
gctttattta tctccaggat gtttttgtgg ctgtatttga ttgatatgtg cttcttctga 360
ttcttgctaa tttccaacca tattgaataa atgtgatcaa gacaaaaa               408

<210> 536
<211> 184
<212> DNA
<213> Homo sapiens

<400> 536
acctctcatc aaggctctgc ctacaggcac attgtgatgt atctctgcac tgatcaccta 60
ggtcatgtaa ctttttctca ggctctacct acgatggcat tgtgacataa ctctgcacta 120
atcatccacg tgatgtaact cttgtctagg atgtgcctaa attaactttt tgacgtaacc 180
ctgt                                                              184

<210> 537
<211> 311
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(311)
<223> n = A,T,C or G

<400> 537
ccacagttgt atcatatagc atctntaaca tttcatctag gattatctag tatagatctt 60
actatatttg gggctatgtt gtatacaatg ttaacaagaa catatcttct ctgcatatat 120
gtgtgaatta taaagaaaag catgagaatg actctaagtt caacaaacat gggtgaatct 180
ctatgtgctc ccagtgtcct ggatgggctc cccagcaagc cattcctcct tcctgttctg 240
atattactat tctttttac attgtgctaa ggaggacaaa aggtgagaga tgaaaataaa 300
gccttgcctt t                                                      311

<210> 538
<211> 302
<212> DNA
<213> Homo sapiens

<400> 538
aaaataaaaa agcaaaaact cttgtggtac ctagtcagat ggtagacgag ctgtctgctg 60
ccgcaggagc acctctatac aggacttaga agtagtatgt tattcctggt taagcaggca 120
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ttgctttgcc ctggagcagc tattttaagc catctcagat tctgtctaaa ggggtttttt 180
gggaagacgt ttctttatc gccctgagaa gatctacccc agggagaatc tgagacatct 240
tgcctacttt tctttattag ctttctcctc attcatttct tttatacctt tcctttttgg 300
gg 302

<210> 539
<211> 396
<212> DNA
<213> Homo sapiens

<400> 539
actgtttatt tgctccttct cttcatgcct gtggctggat gtcccacaac actataagaa 60
atataagtca agccctttgt gttaagcaag aactacagac tccatctttt cacccaaatc 120
atgaatgacc aataaaaagc aagttattcc agaggaagaa gcagcccttg aaatgttaag 180
gcttaggctt gaaaggtgaa gagcaggaat tctctctttc aaatcctaga gcataaaccc 240
atgtgtggcc aagtgagatc agccctcaag ggcacatgcc aagggcagag cagcccatgt 300
agacagcttc ggagggcatg ggggtgtagg gagttcgggg tagctcctca ttaactattt 360
gttgggtgag taaaggggtg aggctcagtg gcaggt 396

<210> 540
<211> 634
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(634)
<223> n = A,T,C or G

<400> 540
ccaaaaacaa gatgaccaga tttgntttna gcctgatgac cctacaggtc gtgctatgat 60
atggagtcct catgggtaaa gcaggaagag agtgggaaag agaaccaccc cactctgtct 120
tcatatttgc atttcatgtt taacctccgg ctggaaatag aaagcattcc cttagagatg 180
aggataaaag aaagtttcag attcaacagg gggaagaaaa tggagattta atcctaaaac 240
tgtgacttgg ggaggtcagt catttacagt tagtcctgtg tctttcgact tctgtgatta 300
ttaaccccac tcactaccct gtttcagatg catttggaat accaaagatt aaatccttga 360
cataagatct catttgcaga aagcagatta aagaccatca gaaggaaatt atttaggttg 420
taatgcacag gcaactgtga gaaactgttg tgccaaaaat agaattcctt ctagtttttc 480
ttgttctcat ttgaaaggag aaaattccac tttgtttagc atttcaagct tttatgtatc 540
catcccatct aaaaactctt caaactccac ttgttcagtc tgaaatgcag ctccctgtcc 600
aagtgccttg gagaactcac agcagcacgc ctta 634

<210> 541
<211> 221
<212> DNA
<213> Homo sapiens

<400> 541
cacacaagca gcagagacca tgggaaccct ctcagcccct ccctgcacac agcgcatcaa 60
atggaagggg ctcctgctca cagcatcact tttaaacttc tggaacctgc ccaccactgc 120
ccaagtcacg attgaagccg agccaaccaa agtttccgag gggaaggatg ttcttctact 180
tgtccacaat ttgccccaga atcttaccgg ctacatctgg t 221

<210> 542

<211> 287
<212> DNA
<213> Homo sapiens

<400> 542
cctcttctac tatggcagga gatgtggcgt gctgttgcaa agttttcacg tcatcgtttc 60
ctggctagtt catttcatta agtggctaca tcctaacata tgcatttggt caaggttgca 120
gaagaggact gaagattgac tgccaagcta gtttgggtga agttcactcc agcaagtctc 180
aggccacaat ggggtggttt ggtttggttt ccttttaact ttccttttgt tatttgcttt 240
tctcctccac ctgtgtggta tattttttaa gcagaatttt atttttt 287

<210> 543
<211> 274
<212> DNA
<213> Homo sapiens

<400> 543
acttgtgaaa cacagctgtt cttctgttct gcagacacgc cttcccctca gccacaccca 60
ggcacttaag cacaagcaga gtgcacagct gtccactggg ccattgtggt gtgagcttca 120
gatggtgaag cattctcccc agtgtatgtc ttgtatccga tatctaacgc tttaaatggc 180
tactttggtt tctgtctgta agttaagacc ttggatgtgg tttaattgtt tgtcctcaaa 240
aggaataaaa cttttctgct gataagataa aaaa 274

<210> 544
<211> 307
<212> DNA
<213> Homo sapiens

<400> 544
ccaggtggtt gtcttattgc accatactcc ttgcttcctg atgctgggca atgaggcaga 60
tagcactggg tgtgagaatg atcaaggatc tggaccccaa agaatagact ggatggaaag 120
acaaactgca caggcagatg tttgcctcat aatagtcgta agtggagtcc tggaatttgg 180
acaagtgctg ttgggatata gtcaacttat tctttgagta atgtgactaa aggaaaaaac 240
tttgactttg cccaggcatg aaattcttcc taatgtcaga acagagtgca acccagtcac 300
actgtgg 307

<210> 545
<211> 570
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(570)
<223> n = A,T,C or G

<400> 545
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ttatggtaaa tgtagaagca tcatgatgag gacgaagaga acgctgtcgt tcaggggagt 120
atttactac aaaattcagt agtgcaaatc ccttcgtata atagcctgca aagaccttca 180
gtgtaactgg ngcaatgaac tcccggataa aatgaagcca tacattctcc agatcaactt 240
gcttcatgtg gatatcatca gttgggacat tttcataacc accagatata cggctatcat 300
gatgttttcc cccagaccat ttgccgtaat gttccatttc ttctaccaat tcatcacagg 360
ctttttcaga aaatatgggg aaccaaaaga catctggaca gggctgttca actatatttt 420

cagtgaaaat ctttgaataa tcacggttta tatacttttc cttccagtcc acaggatttt 480
caaaaatctg ccagaggtca ttgttataat gggaagtatt gtaattagca gtggataata 540
gccttccaaa ttcatgtcta ttagaaatgt 570

<210> 546
<211> 589
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(589)
<223> n = A,T,C or G

<400> 546
aaaaatactt tttaccaaag gtgctatttc tctgtaaaac actttttttt ggcaagttga 60
ctttattctt caattattat cattatatta ttgtttttta atattttatt ttcttgacta 120
ggtattaagc ttttgtaatt atttttcagt agtcccacca cttcataggt ggaaggagtt 180
tggggttctt cctggtgcag gggctgaaat aacccagatg cccccaccct gccacatact 240
agatgcagcc catagttggc ccccctagct tccagcagtc cactatctgc cagaggagca 300
agggtgcctt agaccgaagc caggggaaga agcatcttca taaaaaactt tcaagatcca 360
aacattaatt tgtttttatt tattctgaga agttgaggca aatcagtatt cccaaggatg 420
gcgacaaggg cagccaagca gggcttagga tatcccagcc taccaatatg ctcattcgac 480
taactaggag ggtgagttgg ccctgtctct tctttttctt ggacctcagt ttccttcagt 540
ggagcttggt aaaaatgcac taccntttga tttgataagg tataaatct 589

<210> 547
<211> 293
<212> DNA
<213> Homo sapiens

<400> 547
actcctatta ttgactgtag tcaatcaaac ataaaaaggt gaaagtaaaa tttaattttt 60
taccccttatt ttactgacca atatggaagt tcttggtatc tttaaggctg accttcctgg 120
tattgtgtaa tgattgaatg tatctaaact gtaataattt gaaactgaca aacataacct 180
tctcagactt acaaaactat gttctttcta aagatacaga tttttattat tttattttga 240
ctaggaagga tttataaata aatgtaatga aaaatctttg atcttaataa agt 293

<210> 548
<211> 98
<212> DNA
<213> Homo sapiens

<400> 548
aaacaaaggt tgagatgtaa aaggtattaa attgatgttg ctggactgtc atagaaatta 60
cacccaaaga ggtatttatc tttacttttt tttgtaca 98

<210> 549
<211> 121
<212> DNA
<213> Homo sapiens

<400> 549
acatgcatat ttcaaagacc tgttaatggc gtccactttg gattcttaca tgaaacgatt 60

cagtgcacat tgtaagccta aggaccacgc aaaagggttt cccacatatt aagtattcag 120
t 121

<210> 550
<211> 509
<212> DNA
<213> Homo sapiens

<400> 550
acaatagtat acattttata atgatgaact tataatgatt aagggacatt tctataaaaa 60
tactacaata gttttatgca caacttccca ttaaaaatga gatttcttat ttgtttgtct 120
gtttttactc tgggagtaat actttttaaa ttacctttac atatatagtc actggcatac 180
tgagaatata caatgatcct ggaaattgca gtaacaaaag cacacaacga ttatagtaac 240
tataagatac aataaaacaa ataaatgtga aagtagattc atgaaaatgt attcctttaa 300
aatattgttt tcctacaggc ctatttaaca agatgtttca ttttactgta tattttgtag 360
ttaatataaa tgttgctcta atcagattgc ttaaaagcat ttttattata tttatgttgt 420
tgaactaata tatgaaataa gtaaatgtag ctcccacaag gtaaacttca ttggtaagat 480
tgcactgttc tgattatgta agcatttgt 509

<210> 551
<211> 427
<212> DNA
<213> Homo sapiens

<400> 551
accatggtta tatgattaat cttgggacaa agaattttat agaaattttt aaacatctgg 60
aaaagaagct taagttttat catccttttt tttctcgtga attcttaaag gattatgctt 120
taatgctgtt atctatctta ttgttcttga aaatacctgc atttttggt atcatgttca 180
accaacatca ttatgaaatt aattagattc ccatggccat aaaatggctt taaagaatat 240
atatatattt ttaaagtagc ttgagaagca aattggcagg taatatttca tacctaaatt 300
aagactctga cttggattgt gaattataat gatatgcccc ttttcttata aaaacaaaaa 360
aaaaaataat gaaacacagt gaatttgtag agtgggggta tttgacatat tttacagggt 420
ggagtgc 427

<210> 552
<211> 340
<212> DNA
<213> Homo sapiens

<400> 552
cctcaaggcg gtccaattat ccacttgcag attctacaga aagagtgttt caaaactgct 60
ctgtcaagag aaatggtcca ccgtgtgtgt ggaatgcagc catcacacat tagtttctga 120
gattgcttct gtcttggttt tatggggaga tatttccatt tctagcatag gcttcaaggc 180
gctctaaata tccgcttgga aatactacaa aaacagtgtt tcaaaactgc tgtatccaaa 240
ggaaggtgcc actcgctgag ttgaatgcac acatcacaag gaagtttctg agaattcttc 300
tgtctagatt catacgaaga aatcccgttt ccaacgaagg 340

<210> 553
<211> 549
<212> DNA
<213> Homo sapiens

<400> 553
acttgagctg tgaggtcatc ggaatcccga cacctgtcct catctggaac aaggtaaaaa 60

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ggggtcacta tggagttcaa aggacagaac tcctgcctgg tgaccgggac aacctggcca 120
ttcagacccg gggtggccca gaaaagcatg aagtaactgg ctgggtgctg gtatctcctc 180
taagtaagga agatgctgga gaatatgagt gccatgcatc caattcccaa ggacaggctt 240
cagcatcagc aaaaattaca gtggttgatg ccttacatga aataccagtg aaaaaaggtg 300
aaggtgccga gctataaacc tccagaatat tattagtctg catggttaaa agtagtcatg 360
gataactaca ttacctgttc ttgcctaata agtttctttt aatccaatcc actaacactt 420
tagttatatt cactggtttt acacagagaa atacaaaata aagatcacac atcaagacta 480
tctacaaaaa tttattatat atttacagaa gaaaagcatg catatcatta aacaaataaa 540
atactttt                                                          549

<210> 554
<211> 321
<212> DNA
<213> Homo sapiens

<400> 554
acctaataat atgttaacat aaacataaca acacacatat tatttttcta ccccttggca 60
actgaaaatg aagttaccat tcctaggcca aatttttaga caaagctttc taaaaccatc 120
tttataaagt aaattcagat atgcttacaa taaaaagaca taaaagattc atcctgagat 180
gaattctgag tcaataacta aaaaccattt ctaccagtgc atcactacca tgtaatccat 240
tctacgcaag ctctacaaat attgagtcaa atcctgtctg tcagaaaatg aagacccaat 300
aagtttgccg aagtattcag t                                           321

<210> 555
<211> 322
<212> DNA
<213> Homo sapiens

<400> 555
ctggatcccg agaatactgg aacaatagag ctcgacctta tctcttggct ctgtttctca 60
gtactttgaa gttataacta atctgcctga agacttctca tgatggaaaa tcagccaagg 120
actaagcttc catagaaata cactttgtat ctggacctca aaattatggg aacatttact 180
taaacggatg atcatagctg aaaataatga tactgtcaat ttgagatagc agaagtttca 240
cacatcaaag taaaagattt gcatatcatt atactaaatg caaatgagtc gcttaaccct 300
tgacaaggtc aaagaaaact tt                                          322

<210> 556
<211> 286
<212> DNA
<213> Homo sapiens

<400> 556
aaaaaatatg tatctaagaa tgttctaggg cactctggga acctataaag gcaggtattt 60
cgggccctcc tcttcaggaa tcttcctgaa gacatggccc agtcgaaggc ccaggatggc 120
ttttgctgcg gccccgtggg gtaggaggga cagagagaca gggagagtca gcctccacat 180
tcagaggcat cacaagtaat ggcacaattc ttcggatgac tgcagaaaat agtgttttgt 240
agttcaacaa ctcaagacga agcttatttc tgaggataag ctcttt                286

<210> 557
<211> 459
<212> DNA
<213> Homo sapiens

<400> 557
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acagaagatg aataataatg aaaaactgtg atttttgac tatcacatac attgtgttaa 60
aaaacaggta aatataatga ctattactgt taagaaagac aaggaggaaa actgtttcaa 120
tgttcaggtt taaatactaa gcacaaaaat ataacaaatt ctgtgtctac aataattttt 180
gaagtgtata caagtgcatt gcaaatgagc tctttaaaat ttaaagtcca tttccccttt 240
agccaagcat atgtctacat ttatgatttc tttctcttat tttaaagtct cttctggttt 300
agtttttaa aaagtttcat catggctgtc atcttggaat ctagcctcca gctcaaagct 360
gagacttcac gcatacatat tctcctttct gggtgcatct tcacctagtt tctccaagta 420
ttcagagtta aatagcacaa cttcttttat atgttccct 459

<210> 558
<211> 303
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(303)
<223> n = A,T,C or G

<400> 558
aaaaaataaa aaacaagaca acaatttagt agaagtaccn ctgggaggga ggggagggga 60
aaaaaggata tacaggggca ggngtattct ctgtacagag gtgcananaa aatttcacat 120
anctttanag aatgccttgt ggaaaaaaaa aaataggccc caatacttgt tactgccctt 180
tatcaaaact gtgtgcatga cctgcacaaa taaaatcaca aaacagtgtt gccacattct 240
tcaaggaaac aaagcaaaat ttagggggnt tcttttccct ctccttgtta aaagtcattt 300
ttt 303

<210> 559
<211> 232
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(232)
<223> n = A,T,C or G

<400> 559
aaagcattta ttaagaattt actcaggcat gatggcccat acttgtaatc ccagctattg 60
ggaaggatga gatgggagga tggcttgagg ccagaggttt gagaccgacc agccagggca 120
acacagtgag acccсttctc aaaaaaaaaa aaaaaaaaag agagagtgtg tgattagaag 180
ctaaatagga aagttttgag cttcaagtca gngaggagta aaaaagattt tt 232

<210> 560
<211> 336
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(336)
<223> n = A,T,C or G

<400> 560

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ctctgcaaaa ataannataa aaaaataaat aaaattttaa aaataataaa attcactata 60
tacacatata aagaaataaa aagaagtctc agttgcagct atttgtcaaa attaatatcc 120
atttcttttt atatacggtg aatattgcgc aattatagat ctggattttg aaccacttaa 180
tgaagcggca acaccaggtg ttttgaggtg ttggcattct tcgctgattt ggctgttccc 240
aatgtttaca ttatttaatc ttgcaaaaat ggttctgtgc acttggatgn gaaatgctgn 300
ccagntttat ttttttatg ttgntatcct tggatg                            336

<210> 561
<211> 636
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(636)
<223> n = A,T,C or G

<400> 561
acattatggg ttttattgct ttcttttatg gtagacctgt taatggggaa aaaatacatc 60
aaatcaaata gaatcttata tctgtatgtt aaaatagagc acttacctga agtcagtggc 120
ctggatcata gccctggatc atttcccagt ctgtcctgtg ctgtgtgacc ttggacaagg 180
cgcttcatct ctctgggcct ctatttctcc atttgtaaaa caagtggctg cagtagatga 240
tggctgagag cccttcctgt tcccagatgc cttggtccaa agaccccacc cctctgctgg 300
tcctgccaac gtgttggtgc tataagctgc ttcagatata aaattggttt atctataatg 360
tttgttcatt taatagcttc taaaaggcct ttttgttata cagtgctttt tttctagttt 420
tatggacttg gttactgtaa taatgtcttg tttttagcca tgtaactaca aacagatatt 480
ctcttgatgt cttagtaaat ttgcatttga tatatcattg atgagatttt gttgttatgt 540
aatattcttt ggctacgcat ctgtccagca tcttattaac cataatactg ngatcattat 600
ttggaaatat gtcctatgga aagaataaaa gcatgt                            636

<210> 562
<211> 708
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(708)
<223> n = A,T,C or G

<400> 562
acagtccacc ttttgataca tgccatgcct ttgatcaaag aacaggacat aaaaacaaag 60
tcacaatgac attccatagt aaatttggaa tcagaactcc aaatgcaact tcgggctcgc 120
tggagaacaa ctaaggggca ccaaaccctc tgaggtttta ctttaaggtt cgctgtatgt 180
ttgccttgga caaaaaggct acctaccacg tgctatccag taatatactt aaataagcca 240
atacttagat ctactgtaag gcagatgcta attataaggc attaagtaag caaatagtgc 300
cctcagctac tgcagaagaa aagtcccact gaggaaaaga aagtcttgtg atttttaaag 360
gcaagttttc aagtgctctc atagttctat cctctaattc cattaaatcc atactaggag 420
cgtcagtgag ggttttcata gcttttggaa atactttggt ctctgaactg taattagcaa 480
gaagtaaaaa cagaaacgtc aaacgtcaaa tgtttgcttt gttacctgga ggactaaatg 540
tagatgtctt tagtatactt tgtatgttct taatattgga agataatttt gtgaatctgt 600
agattttatt ttttcagtct taccttacaa atttcttttc tatgaataat agaggactta 660
cngcactctg ccatttgtta atgaaaggaa ggcngangat ttagaaag               708
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<210> 563
<211> 290
<212> DNA
<213> Homo sapiens

<400> 563
ccagatgctc atccactttc agactttcat ctcttctgcc atctgccaaa gtcaacagag 60
ctttccggaa gtcaccagat gtttcggaac taatgtcatc tccaagactc ttcttgtata 120
ctgtataata ggcttgagag atatccttca tttgcctgct tgtcctggta gttaagattt 180
caatcaaggc atcttcgttt gttcccgcgc ccttcatgga tttctttagc tgctttgcat 240
caaagactgc tggtggagtc actagggcca ccatgagatg ctcaaagtgg 290

<210> 564
<211> 530
<212> DNA
<213> Homo sapiens

<400> 564
accaccagat acttaaagct tcaaaaagac tgcccctacc accacaggag gaccagccta 60
accatacgct ccaaaagatg gctgtgatag atcttgtgaa gcaattactg agcagatcaa 120
gatctttggg aaggaacact aaagatgttt tgaatgaatt atagtccact ggcattttag 180
tgtatttttt tttcttttta gaaacacaca tttctaaaaa tgtcatgtta cattcctgca 240
tgtccctttt gatagcatta gtggatccat tggatttctt ttttcttttt gtgagacagc 300
ttttagtctt acctgaattt atgtgtgttt ttccgacagt ggttaataat tatattggtg 360
atgtagcagc aattgtgttg gcagggtttt catatattat tagtaattaa cactaactgt 420
tggactgact tgtgtcgata gcgctcacgc aagcatggtt aacgtcccta aaacccgccg 480
gactttctgt aagaagtgtg gcaagcacca accccataaa gtgacacagt 530

<210> 565
<211> 450
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(450)
<223> n = A,T,C or G

<400> 565
ctgcttacgg aagcgctgnn tgactaggat gtgatttatt aacgaccaac ttctgttatt 60
gtgtgttaag tttttcatct gtgcatcaaa tcacaaaaag aataaataga gctttttcct 120
ttatcagtcc cttgggcaca gcaggtcctg aacaccctgc tctacaatgt tgcatcaaga 180
gttcaaacaa caaaataaaa aatattaaga ggaaatcccc atcctgtgac ttgagtccct 240
taagtctaca ggggctggtg acctcttttt gctaatagga aaatcacatt actacaaaat 300
ggggagaaaa ctgtttgcct gtggtagaca cctgcacgca taggattgaa gacagtacag 360
gctgctgtac agagaagcgc ctctcacatc tgaactgcat actgagcggg caagtcggtt 420
gtaagttcag taaaaccctc tgatgatgcc 450

<210> 566
<211> 563
<212> DNA
<213> Homo sapiens

<400> 566

acttgagctg tgaggtcatc ggaatcccga cacctgtcct catctggaac aaggtaaaaa 60
ggggtcacta tggagttcaa aggacagaac tcctgcctgg tgaccgggac aacctggcca 120
ttcagacccg gggtggccca gaaaagcatg aagtaactgg ctgggtgctg gtatctcctc 180
taagtaagga agatgctgga gaatatgagt gccatgcatc caattcccaa ggacaggctt 240
cagcatcagc aaaaattaca gtggttgatg ccttacatga aataccagtg aaaaaaggtg 300
aaggtgccga gctataaacc tccagaatat tattagtctg catggttaaa agtagtcatg 360
gataactaca ttacctgttc ttgcctaata agtttctttt aatccaatcc actaacactt 420
tagttatatt cactggtttt acacagagaa atacaaaata aagatcacac atcaagacta 480
tctacaaaaa tttattatat atttacagaa gaaaagcatg catatcatta aacaaataaa 540
atacttttta tcacaaaaaa aaa 563

<210> 567
<211> 424
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(424)
<223> n = A,T,C or G

<400> 567
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gaataccctt ctccatagca ggtgcaatgc tgactgctca aggcgtgcgt gcgcgcgcac 120
acacacacac acacacacac atacatactc tcacacacnc atctttccaa ttaaactgca 180
ggtagaatga gattttgtgt tattcaaaaa atttgtaagt gatcaaaanc actgctatgg 240
aatgcctgtt tatctgcctt tgntctggtt aaaatctcat aaaaatacat tcaacaggaa 300
aacatanatt gtatgtgtat aaatatatat gtatatatat atattatata cacatgcaca 360
caaatacttt tgtttttga agcataagat agttacataa atactcctat aattgctaaa 420
gttt 424

<210> 568
<211> 392
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(392)
<223> n = A,T,C or G

<400> 568
actggctcac tcagagagga cgtccttcaa ctatgccatg aaggaggctg ctgcagcggc 60
tttgaagaag aaaggatggg aggtggtgga gtcggacctc tatgccatga acttcaatcc 120
catcatttcc agaaaggaca tcacaggtaa actgaaggac cctgcgaact ttcagtatcc 180
tgccgagtct gttctggctt ataaagaagg ccatctgagc ccagatattg tgggttganc 240
aaaagaaagc ttggaagccn caagaacctt gtgatattcc agttcccccct gcantgggtt 300
tgggaagtcc ctgccntttt gaaagctggt ttgaagcgaa tgttcatagg aaagtttgct 360
taccacttac cctgcccatg gtangacaaa ag 392

<210> 569
<211> 559
<212> DNA
<213> Homo sapiens

<400> 569
aaagagattt attaaatcat cttatcacaa agatggaaac atatacaaac tagaaacatg 60
caaccatcat cttccacagt caagtcacaa tgtcaaatat ttttcttgcc tctgcagatg 120
aaaagttcag atcttatacc caactactta ctcaccccga atatttaagt cagtcttcct 180
gaaagtactc agggtagcaa gtaacaaaat gcaaacgatt atataaagaa agtgcagtta 240
aaaaggaaac tatgtggcaa gtaccctctt tcccttccca ccccccaatt aaaggcaaac 300
aatggcactt tgctcttgct taacctagat tgtcttcaaa aactattaaa atgtaaaaga 360
cttaacaaaa aaacaaaaag acgtttaaca gatgtcaaaa agctccttag tgtttgaaaa 420
taaatgctta aacaaaagac aacatatttt atatcaaaca agtttgaaga gccctgaatt 480
gcagcattct gtaacataaa caaacaaaaa gctggtatag gatttattgg caaaggcaga 540
atttcttcaa gcagggtaa 559

<210> 570
<211> 368
<212> DNA
<213> Homo sapiens

<400> 570
agccgccgct ggatgctaag tccgatgtca ccaaccagct tgtagatttt cagtggaaac 60
tgggtatggc tgtgagctca gacacttgca gatctcttaa gtatccttac gttgcagtga 120
tgctaaaagt ggcagatcat tcaggccaag taaagaccaa gtgctttgaa atgacgattc 180
cacagtttca gaatttctac agacagttca aggaaattgc tgcagttatt gaaacggtgt 240
gaagacggat tctttggttg ataaattgct atcattctaa agtcatggac ttcactttcg 300
gcaacaaaac taaataagga tggaacattt attgaatgaa aaatgcactt ttgtttttcc 360
attttttt 368

<210> 571
<211> 261
<212> DNA
<213> Homo sapiens

<400> 571
acacgattgc tgcttccgct atatttgtga tataggaatt aagaggatac acacgtttgt 60
ttcttcgtgc ctgttttatg tgcacacatt aggcattgag acttcaagct tttctttttt 120
tgtccacgta tctttgggtc tttgataaag aaaagaatcc ctgttcattg taagcacttt 180
tacggggctg gtggggaggg gtgctctgct ggtcttcaat taccaagaat tctccaaaac 240
aattttctgc aggatgattg t 261

<210> 572
<211> 488
<212> DNA
<213> Homo sapiens

<400> 572
ctctcagctc tcggcgcacg gcccagcttc cttcaaaatg tctactgttc acgaaatcct 60
gtgcaagctc agcttggagg gtgatcactc tacaccccca agtgcatatg ggtctgtcaa 120
agcctatact aactttgatg ctgagcggga tgctttgaac attgaaacag ccatcaagac 180
caaaggtgtg gatgaggtca ccattgtcaa cattttgacc aaccgcagca atgcacagag 240
acaggatatt gccttcgcct accagagaag gaccaaaaag gaacttgcat cagcactgaa 300
gtcagcctta tctggccacc tggagacggt gattttgggc ctattgaaga cacctgctca 360
gtatgacgct tctgagctaa aagcttccat gaaggggctg ggaaccgacg aggactctct 420
cattgagatc atctgctcca gaaccaacca ggagctgcag gaaattaaca gagtctacaa 480
ggaaatgt 488

<210> 573
<211> 619
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(619)
<223> n = A,T,C or G

<400> 573
actttactga aagaacacta ntgttctttc ctttccgttg tgaaaaaagt tgtttctgag 60
gaattgaaac cccagaagat aactacaaca aaaacatgtt aatttttttt taaaaatgat 120
gattcaaagg cagatttgaa gggaagtaat atttaggtgg cagaagaagg caaatgcagc 180
ctctgaaggg aactgttcta attattacct aaaaaataaa gttacacaac tatattcaag 240
gacatgagat aaagcactgc ttgaaaacca gaatgactga acagttaggt gaaaaggaac 300
agctgaaata ggaaggggaa atggactgaa gaataatttg aatcgggaca gtgatccatc 360
agtcctagat gcttctggta tgtaaatatc ttgaatcaca ttgtttcctt tcttctgaaa 420
tctcaaagga gaattctcac agcactacat taaggttgcc attttgttag gattcaaaat 480
ttcaatccag tagccatcag gatcttgaat aaatgccagg cctttcattt taccatcatc 540
aggtttcttc acaaatttga ctccagtctt caaccttttc aagcctgatc atcaggaaca 600
caattccata tgaccgatc 619

<210> 574
<211> 202
<212> DNA
<213> Homo sapiens

<400> 574
acatccaccc cactatttct tcacataccg aatcaggatt gaaatgtcaa aagatgcact 60
tcctgagaag gcctgtcagt tggacagtcg ctattggaga ataacaaatg ctaagggtga 120
cgtggaagaa gttcaaggac ctggagtagt tggtgaattt ccaatcatca gcccaggtcg 180
ggtatatgaa tacacaagct gt 202

<210> 575
<211> 311
<212> DNA
<213> Homo sapiens

<400> 575
ccacagttgt atcatatagc atctctaaca tttcatctag gattatctag tatagatctt 60
actatatttg ggactatgtt gtatacaatg ttaacaagaa catatcttct ctgcatatat 120
gtgtgaatta taaagaaaag catgagaatg actctaagtt caacaaacat gggtgaatct 180
ctatgtgctc ccagtgtcct ggatgggctc cccagcaagc cattcctcct tcctgttctg 240
atattactat tctttttttac attgtgctaa ggaggacaaa agatgagaga tgaaaataaa 300
gctttgcctt t 311

<210> 576
<211> 134
<212> DNA
<213> Homo sapiens

<220>

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<221> misc_feature
<222> (1)...(134)
<223> n = A,T,C or G

<400> 576
tttttgcat caaaaagctt tatttccatt tggnccaagg cttgttagga tagttaaaaa 60
agctgcctat tggctggagg ganaggctta ggcaaaancc ctattacttt gcaaggggcc 120
cttcaaaagt cgct                                                  134

<210> 577
<211> 488
<212> DNA
<213> Homo sapiens

<400> 577
ctgatcagtg ggcctccaag gaggggctgt aaaatggagg ccattgtgtg agcctatcag 60
agttgctgca aacctgaccc ctgctcagta aagcacttgc aaccgtctgt tatgctgtga 120
cacatggccc ctccccctgc caggagcttt ggacctaatc caagcatccc tttgcccaga 180
aagaagatgg gggaggaggc agtaataaaa agattgaagt attttgctgg aataagttca 240
aattcttctg aactcaaact gaggaatttc acctgtaaac ctgagtcgta cagaaagctg 300
cctggtatat ccaaaagctt tttattcctc ctgctcatat tgtgattctg cctttgggga 360
cttttcttaa accttcagtt atgatttttt tttcatacac ttattggaac tctgcttgat 420
ttttgcctct tccagtcttc ctgacacttt aattaccaac ctgttaccta ctttgacttt 480
ttgcattt                                                         488

<210> 578
<211> 476
<212> DNA
<213> Homo sapiens

<400> 578
accatgcatt aagagcttcc tgattgagat tcagtgcatc agccgtgtct attccatcta 60
cgtccacacc gtctgtgacc cactctttga agctgttggg aaaatattca gcaatgtccg 120
catcaacttg cagaaagaaa tataaatgac atttcaagga tagaagtata cctgattttt 180
ttcctttaa ttttcctggt gccaatttca agttccaagt tgctaataca gcaacaattt 240
atgaattgaa ttatcttggt tgaaaataaa aagatcactt tctcagtttt cataagtatt 300
atgtctcttc tgagctattt catctatttt tggcagtctg aatttttaaa acccatttaa 360
attttttcc ttaccttttt atttgcatgt ggatcaacca tcgctttatt ggctgagata 420
tgaacatatt gttgaaaggt aatttgagag aaatatgaag aactgaggaa aaaaaa    476

<210> 579
<211> 246
<212> DNA
<213> Homo sapiens

<400> 579
ctggtgctca ctgagatggt aggttttcct attttcctgc tacatctgca caagctacat 60
ctagaatgaa gccaccaatt tcaatgtgac caggcaatgg cagccagcac tgccttacac 120
tggtttgatt ctgattccct aattctggcc actgcaggtg atgagtaagg gtggggatca 180
gggaggaagt ccagaagcca gtctttgtct ccctttcctg cttatattta agtgcctatt 240
tacatg                                                           246

<210> 580
<211> 615
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<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(615)
<223> n = A,T,C or G

<400> 580
gtcttcacag taataactaa tggtggatcc taaggtgaaa ttatttcctt caaaatagnc 60
atgaactgna ttcccaggag ggncacagtc cctacttttg canatgggaa agggaggtgc 120
ccaggtgtgg tcctctagac actggctccg attgctgccc ttgaggatgt agtggtcatt 180
gcacataaac gtgattttgt cacttacatt cacaggccct gaagaactga actctccatt 240
caccagcaca ggatcaggac agtggcccaa gcggcactca gtagtggtgt tatcccactc 300
cttagaggca ttgcaaaaaa gggtcttctt tcctaccagg tggtagccct tgatacaaac 360
gtaagtcccc agaatctgtc cttccacctc ctttgcgaca aatatgctat tgtccactgg 420
aggaagctct ggacagtgct catctgaagc agaaactcgc cacgcaacca taagacagca 480
cgcacaccaa aaaaacatct ggtgatcaaa gtcctctccc caggctggaa ttcacccagc 540
tcagacacct tacctgtctc tgtccctcca gagttagggc ttcccancaa ggaactgggc 600
ttaactgact tccaa 615

<210> 581
<211> 576
<212> DNA
<213> Homo sapiens

<400> 581
actcttgttg agttctgtag agccttctga tgtctctaaa gcactaccga ttctttggag 60
ttgtcacatc agataagaca tatctctaat tccatccata aatccagttc tactatggct 120
gagttctggt caaagaaaga aagtttagaa gctgagacac aaagggttgg gagctgatga 180
aactcacaaa tgatggtagg aagaagctct cgacaatacc cgttggcaag gagtctgcct 240
ccatgctgca gtgttcgagt ggattgtagg tgcaagatgg aaaggattgt aggtgcaagc 300
tgtccagaga aaagagtcct tgttccagcc ctattctgcc actcctgaca gggtgacctt 360
gggtatttgc aatattcctt tgggcctctg cttctctcac ctaaaaaaag agaattagat 420
tatattggtg gttctcagca agagaaggag tatgtgtcca atgctgcctt cccatgaatc 480
tgtctcccag ttatgaatca gtgggcagga taaactgaaa actcccattt acgtgtctga 540
atcgagtgag acaaaatttt agtccaaata acaagt 576

<210> 582
<211> 939
<212> DNA
<213> Homo sapiens

<400> 582
atgagcatcg gcctcctgtg ctgtgcagcc ttgtctctcc tgtgggcagg tccagtgaat 60
gctggtgtca ctcagacccc aaaattccag gtcctgaaga caggacagag catgacactg 120
cagtgtgccc aggatatgaa ccatgaatac atgtcctggt atcgacaaga cccaggcatg 180
gggctgaggc tgattcatta ctcagttggt gctggtatca ctgaccaagg agaagtcccc 240
aatggctaca atgtctccag atcaaccaca gaggatttcc cgctcaggct gctgtcggct 300
gctccctccc agacatctgt gtacttctgt gccagcagtt actcagtcgg ggagggcggg 360
gattcacccc tccactttgg gaatgggacc aggctcactg tgacagagga cctgaacaag 420

gtgttcccac ccgaggtcgc tgtgtttgag ccatcagaag cagagatctc ccacacccaa 480
aaggccacac tggtgtgcct ggccacaggc ttcttccctg accacgtgga gctgagctgg 540
tgggtgaatg ggaaggaggt gcacagtggg gtcagcacgg acccgcagcc cctcaaggag 600
cagcccgccc tcaatgactc cagatactgc ctgagcagcc gcctgagggt ctcggccacc 660
ttctggcaga acccccgcaa ccacttccgc tgtcaagtcc agttctacgg gctctcggag 720
aatgacgagt ggacccagga tagggccaaa cccgtcaccc agatcgtcag cgccgaggcc 780
tggggtagag cagactgtgg ctttacctcg gtgtcctacc agcaaggggt cctgtctgcc 840
accatcctct atgagatcct gctagggaag gccaccctgt atgctgtgct ggtcagcgcc 900
cttgtgttga tggccatggt caagagaaag gatttctga 939

<210> 583
<211> 828
<212> DNA
<213> Homo sapiens

<400> 583
atgaactatt ctccaggctt agtatctctg atactcttac tgcttggaag aacccgtgga 60
aattcagtga cccagatgga agggccagtg actctctcag aagaggcctt cctgactata 120
aactgcacgt acacagccac aggataccct tccctttttct ggtatgtcca atatcctgga 180
gaaggtctac agctcctcct gaaagccacg aaggctgatg acaagggaag caacaaaggt 240
tttgaagcca cataccgtaa agaaaccact tctttccact tggagaaagg ctcagttcaa 300
gtgtcagact cagcggtgta cttctgtgct ccgaaccctt ctcttcaggg cggatctgaa 360
aagctggtct ttggaaaggg aacgaaactg acagtaaacc catatatcca gaaccctgac 420
cctgccgtgt accagctgag agactctaaa tccagtgaca agtctgtctg cctattcacc 480
gattttgatt ctcaaacaaa tgtgtcacaa agtaaggatt ctgatgtgta tatcacagac 540
aaaactgtgc tagacatgag gtctatggac ttcaagagca acagtgctgt ggcctggagc 600
aacaaatctg actttgcatg tgcaaacgcc ttcaacaaca gcattattcc agaagacacc 660
ttcttcccca gcccagaaag ttcctgtgat gtcaagctgg tcgagaaaag ctttgaaaca 720
gatacgaacc taaactttca aaacctgtca gtgattgggt tccgaatcct cctcctgaaa 780
gtggccgggt ttaatctgct catgacgctg cggctgtggt ccagctga 828

<210> 584
<211> 275
<212> PRT
<213> Homo sapiens

<400> 584
Met Asn Tyr Ser Pro Gly Leu Val Ser Leu Ile Leu Leu Leu Leu Gly
5 10 15

Arg Thr Arg Gly Asn Ser Val Thr Gln Met Glu Gly Pro Val Thr Leu
20 25 30

Ser Glu Glu Ala Phe Leu Thr Ile Asn Cys Thr Tyr Thr Ala Thr Gly
35 40 45

Tyr Pro Ser Leu Phe Trp Tyr Val Gln Tyr Pro Gly Glu Gly Leu Gln
50 55 60

Leu Leu Leu Lys Ala Thr Lys Ala Asp Asp Lys Gly Ser Asn Lys Gly
65 70 75 80

Phe Glu Ala Thr Tyr Arg Lys Glu Thr Thr Ser Phe His Leu Glu Lys
85 90 95

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Gly Ser Val Gln Val Ser Asp Ser Ala Val Tyr Phe Cys Ala Pro Asn
            100                 105                 110

Pro Ser Leu Gln Gly Gly Ser Glu Lys Leu Val Phe Gly Lys Gly Thr
        115                 120                 125

Lys Leu Thr Val Asn Pro Tyr Ile Gln Asn Pro Asp Pro Ala Val Tyr
    130                 135                 140

Gln Leu Arg Asp Ser Lys Ser Ser Asp Lys Ser Val Cys Leu Phe Thr
145                 150                 155                 160

Asp Phe Asp Ser Gln Thr Asn Val Ser Gln Ser Lys Asp Ser Asp Val
                165                 170                 175

Tyr Ile Thr Asp Lys Thr Val Leu Asp Met Arg Ser Met Asp Phe Lys
            180                 185                 190

Ser Asn Ser Ala Val Ala Trp Ser Asn Lys Ser Asp Phe Ala Cys Ala
        195                 200                 205

Asn Ala Phe Asn Asn Ser Ile Ile Pro Glu Asp Thr Phe Phe Pro Ser
    210                 215                 220

Pro Glu Ser Ser Cys Asp Val Lys Leu Val Glu Lys Ser Phe Glu Thr
225                 230                 235                 240

Asp Thr Asn Leu Asn Phe Gln Asn Leu Ser Val Ile Gly Phe Arg Ile
                245                 250                 255

Leu Leu Leu Lys Val Ala Gly Phe Asn Leu Leu Met Thr Leu Arg Leu
            260                 265                 270

Trp Ser Ser
        275


<210> 585
<211> 312
<212> PRT
<213> Homo sapiens

<400> 585
Met Ser Ile Gly Leu Leu Cys Cys Ala Ala Leu Ser Leu Leu Trp Ala
                  5                  10                  15

Gly Pro Val Asn Ala Gly Val Thr Gln Thr Pro Lys Phe Gln Val Leu
             20                  25                  30

Lys Thr Gly Gln Ser Met Thr Leu Gln Cys Ala Gln Asp Met Asn His
         35                  40                  45

Glu Tyr Met Ser Trp Tyr Arg Gln Asp Pro Gly Met Gly Leu Arg Leu
```

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        50                  55                  60

Ile His Tyr Ser Val Gly Ala Gly Ile Thr Asp Gln Gly Glu Val Pro
65                  70                  75                  80

Asn Gly Tyr Asn Val Ser Arg Ser Thr Thr Glu Asp Phe Pro Leu Arg
                85                  90                  95

Leu Leu Ser Ala Ala Pro Ser Gln Thr Ser Val Tyr Phe Cys Ala Ser
            100                 105                 110

Ser Tyr Ser Val Gly Glu Gly Gly Asp Ser Pro Leu His Phe Gly Asn
        115                 120                 125

Gly Thr Arg Leu Thr Val Thr Glu Asp Leu Asn Lys Val Phe Pro Pro
    130                 135                 140

Glu Val Ala Val Phe Glu Pro Ser Glu Ala Glu Ile Ser His Thr Gln
145                 150                 155                 160

Lys Ala Thr Leu Val Cys Leu Ala Thr Gly Phe Phe Pro Asp His Val
                165                 170                 175

Glu Leu Ser Trp Trp Val Asn Gly Lys Glu Val His Ser Gly Val Ser
            180                 185                 190

Thr Asp Pro Gln Pro Leu Lys Glu Gln Pro Ala Leu Asn Asp Ser Arg
        195                 200                 205

Tyr Cys Leu Ser Ser Arg Leu Arg Val Ser Ala Thr Phe Trp Gln Asn
    210                 215                 220

Pro Arg Asn His Phe Arg Cys Gln Val Gln Phe Tyr Gly Leu Ser Glu
225                 230                 235                 240

Asn Asp Glu Trp Thr Gln Asp Arg Ala Lys Pro Val Thr Gln Ile Val
                245                 250                 255

Ser Ala Glu Ala Trp Gly Arg Ala Asp Cys Gly Phe Thr Ser Val Ser
            260                 265                 270

Tyr Gln Gln Gly Val Leu Ser Ala Thr Ile Leu Tyr Glu Ile Leu Leu
        275                 280                 285

Gly Lys Ala Thr Leu Tyr Ala Val Leu Val Ser Ala Leu Val Leu Met
    290                 295                 300

Ala Met Val Lys Arg Lys Asp Phe
305                 310


<210> 586
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<211> 97
<212> PRT
<213> Homo sapiens

<400> 586
Glu Val Glu Val Ser Arg Asp His Ala Ser Leu Gly Asp Ser Glu Thr
                    5                  10                  15

Leu Ser Gln Thr Glu Leu Arg Lys Lys Glu Arg Lys Lys Lys Arg Glu
            20                  25                  30

Arg Lys Phe Gln Ala Asn Cys Gly Ile Asp Phe Ile Ile Phe Trp Ile
        35                  40                  45

Phe Trp Ile Leu Leu Phe Ser His His Trp Ile Gln Glu Ser Leu Leu
    50                  55                  60

Cys Pro Pro Ser Pro Lys Glu Val Thr Cys Arg Glu Met Leu Thr Gly
65                  70                  75                  80

Gly Cys Leu Pro Trp Ala Thr Arg Ser His Leu Gly Arg Arg Lys Cys
                85                  90                  95

Ser


<210> 587
<211> 16
<212> PRT
<213> Homo sapiens

<400> 587
Phe Gln Ala Asn Cys Gly Ile Asp Phe Ile Ile Phe Trp Ile Phe Trp
 1               5                  10                  15


<210> 588
<211> 530
<212> DNA
<213> Homo sapiens

<400> 588
gaattcggca cgagggctgg aggctgagat gcaggagctc gccatccagc tgcacaagcg 60
ctgcgaggag gtagaggcca cgcggggcca ggtgtgtcag gagcaggagc tgcgcgccgt 120
ggtggagagc tgctgctgga gcaggaccgc gcccgcgagg acctccaggc ccggctgcgg 180
gagacgtggg ccctggcccg ggatgctgcc ctcgtcctgg accagctgcg agcctgtcaa 240
gctgagctgt catctcgagt gaggcaggac cagccccctg gtacagccac tctgggccta 300
gccgtccccc cagctgactc caagggctgg caagcgtccc tgcaggccat gagcctcccc 360
gagctctcgg gagccctgga ggaccgtgtc cgtgagatgg ggcaagcact gtgcttagtg 420
acccagagcc tggagaagct gcaggtgctg aacgggaaga agtggcggga gacctagcct 480
gcgggccgaa tctgacgttg ggtgattggt ccaccctgaa gctgtgtgcc            530

<210> 589
<211> 349
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<212> DNA
<213> Homo sapiens

<400> 589
gaattcggca cgaggccagt tcagtctgca agcgccagct cctctcatgg ccggcttacc 60
caccgccttg ccaatgccca ggggcaaacc tcataccacc acttccagaa cactgatcat 120
gacaaccaac aatcaggtac gtggtcctct ggcacccttc ccgctggtgg tccctgggaa 180
cagcatccga gctgtgatat gcactagagg agattgatgg tcctttgaat tagaagagta 240
actttttgag tatttggcca ttggtgtgtt gttctaggaa atcctctctt ttttgtggtg 300
ttgaggtccc ccatgtatag tttcagcagc gaggacactg tggttcttg             349

<210> 590
<211> 509
<212> DNA
<213> Homo sapiens

<400> 590
gaattcggca cgaggcaatc atggcgccac ctgtgagata ctgcatcccc ggcgaacgtc 60
tgtgtaactt ggaggagggc agcccgggca gcggcaccta cacccgccac ggctacatct 120
tttcgtcgct tgccggctgt ctgatgaaga gcagcgagaa tggcgcgctt ccagtggtgt 180
ctgtagtgag agaaacagag tcccagttac tgccagatgt gggagctatt gtaacctgta 240
aggtctctag catcaattca cgctttgcca aagtacacat cctgtatgtg gggtccatgc 300
ctcttaagaa ctcttttcga ggaactatcc gcaaggaaga tgtccgagca actgaaaaag 360
acaaggttga aatttataag agtttccgcc caggtgacat tgtcttggcc aaagtgatct 420
ccttaggtga tgcacagtcc aactacctgc taaccaccgc cgagaacgag ctgggagtgg 480
tggtagccca cagtgagtca ggtatccag                                  509

<210> 591
<211> 510
<212> DNA
<213> Homo sapiens

<400> 591
gaattcggca cgaggtgcat gttgtgtgag gatcccgggg ccgccgcgtc gctcgggccc 60
cgccatggcc gtcaccatca cgctcaaaac gctgcagcag cagaccttca agatccgcat 120
ggagcctgac gagacggtga aggtgctaaa ggagaagata gaagctgaga agggtcgtga 180
tgccttcccc gtggctggac agaaactcat ctatgccggc aagatcttga gtgacgatgt 240
ccctatcagg gactatcgca tcgatgagaa gaactttgtg gtcgtcatgg tgaccaagac 300
caaagccggc cagggtacct cagcaccccc agaggcctca cccacagctg ccccagagtc 360
ctctacatcc ttcccgcctg cccccacctc aggcatgtcc catcccccac ctgccgccag 420
agaggacaag agcccatcag aggaatccgc ccccacgacg tccccagagt ctgtgtcagg 480
ctcttgttcc ctcttcaggt aacaaccggg                                  510

<210> 592
<211> 432
<212> DNA
<213> Homo sapiens

<400> 592
gacatgtaat tcttatttat ttttcaccct caacaaggaa gaaaggtctc tccctcaatt 60
ctgctcttcc aatacttgag gataggcacc cctaaccctc cttcctccag ggaggcctca 120
gcatcagtgt ctgtggacgt agtctctgaa gagtgcttca gctgatgggg aaggagaaac 180
tcaagacaga gatcctccta gggatggcgt cactttcctg ccaactttct cgttgcctct 240
ccttgaaagc agaagaagtg ccagccctca gcttccgtca gatcttgggc tcctagggcc 300
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ttgtacaagt ccatggccct ctggttccag tccaggacgg ccaggcggaa ttgggagcag 360
cccttatcca aggccacctc agccaccttt ttgattattt tggaaccaat cccttgaccc 420
cgatattccg gc 432

<210> 593
<211> 614
<212> DNA
<213> Homo sapiens

<400> 593
gaattcggca cgaggcgcag agttgtcgct actggagaag tccctgggac tgagtaaggg 60
gaataaatac agtgctcagg gcgagcgaca gattccagtt cttcagacaa acaatggtcc 120
aagtctaaca ggattgacta ctatagcagc tcatctagtc aagcaagcca acaaagaata 180
tttgctgggg agtactgcag aagaaaaagc aatcgttcag cagtggttag aatacagggt 240
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ttcatatctt gaagataaag tctaccttac agggtataac tttacattag cagatatact 360
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tcttaatgta tctcgctggt tttgtcacat tcagcattat ccaggcatca ggcaacatct 480
gtctagtgtt ggtcttcatc aagaacagac tatatactaa ttcccctaga aagctgtcca 540
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aggacttaat ggta 614

<210> 594
<211> 336
<212> DNA
<213> Homo sapiens

<400> 594
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ccttgtagac agccggggcc ttcgtgagaa cggtgcaggc ctggggtagt ctcctgtctg 180
gacagagaag agaaaaatgc aggacactgg ctcaagagtg cctttgcatt ggtttggctt 240
tggctaccca gcactggttg cttctggtgg gaatatttgc tattgaaaag caagcaagcg 300
tgccgtccct ggctgcaggg ctgctctttt ggaagt 336

<210> 595
<211> 487
<212> DNA
<213> Homo sapiens

<400> 595
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accttctagc aacaggatga gtctgcagtg gactgcagtt gccaccttcc tctatgcgga 120
ggtctttgtt gtgttgcttc tctgcattcc cttcatttct cctaaaagat ggcagaagat 180
tttcaagtcc cggctggtgg agttgttagt gtcctatggc aacaccttct ttgtggttct 240
cattgtcatc cttgtgctgt tggtcatcga tgccgtgcgc gaaattcgga agtatgatga 300
tgtgacggaa aaggtgaacc tccagaacaa tcccggggcc atggagcact tccacatgaa 360
gcttttccgt gcccagagga atctctacat tgctggcttt tccttgctgc tgtccttcct 420
gcttagacgc ctggtgactc tcatttcgca gcaggccacg ctgctggcct ccaatgaagc 480
ctttaaa 487

<210> 596
<211> 418
<212> DNA

<213> Homo sapiens

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tgcgcgcgtc gcgcacctga cccgctgcgg ggtgctcggg gcgctgaggg agttgcgggc 180
gcacacggtg ctggcggcct cgtgcgcgcg ccaccgccgc tcgctgcgcc tgctggagcc 240
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ctttgtcagc ctgcgggacg gtttcgtgtg cgcgctgctg cgcttccggc agcacctgct 360
gggcacctca cccgagcgcg tcgtgcagca cctgtgccaa cgcaaggtgg aacccccct 418

<210> 597
<211> 418
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 205
<223> n = A,T,C or G

<400> 597
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atcaagtttg ggaaaccgct aggtatccgc actgtggctg tcattggtgg catctccaga 120
gaagaccagg gcttcaggct gcgcatgggt tgtgagattg tgattgctcc cctgggcgtt 180
tgattgatgt gctggaaaac ccgtnccttg tgcttgaccc gctgtaccta tgtggttctg 240
gatgaggcag ataggatgat tgacatgggc tttgagccag atgtccagaa gatcctggag 300
cacatgcctt gtcagcaacc agaagcccaa acacggatga agcttgagga cccctgagaa 360
aaatgcttgg ccaacttttg agtcgggaaa acattaagta cccgcccaaa cagtcatt 418

<210> 598
<211> 266
<212> DNA
<213> Homo sapiens

<400> 598
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caaatgttga gcacatcaat ccccattttg tagacgaaga gacagagttg agtgacttgc 120
ccaaagacac agggccagtg aggagttgtg caggtttgcc ctggcattaa aataataaac 180
attgaaattc agtcgattcc cctatggact cagttataga tctcatcagt tgaaggaaga 240
gagatgcctt ttcctattca accttt 266

<210> 599
<211> 235
<212> DNA
<213> Homo sapiens

<400> 599
gaattcggca cgagggctcc tgcagccttt tcgctgggac tgcgcgacac cgcccccga 60
ccgggtgccc gctgtgtgcc aggccgggtg ctgggcacgg tcccgcgagt gccctataag 120
gactgccagg caataatgaa ggttctttta ctgaaggatg cgaaggaaga tgactgtggc 180
caggatccgt atatcaggga attaggatta tatggacttg aagccacttt gatcc 235

<210> 600

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<211> 386
<212> DNA
<213> Homo sapiens

<400> 600
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tatagggcgc ggcacggtcc aggcgctgca cgcgacgggc gcgcgggtgg tggctgtgag 120
ccggactcag gcggatcttg acagccttgt ccgcgagtgc ccggggatag aacccgtgtg 180
cgtggacctg ggtgactggg aggccaccga gcgggcgctt gggcagcgtg ggccccgtgg 240
acctgctggt gaacaacgcc cgctgtcgcc ctgctgcagc ccttcctgga ggtcaccaag 300
gaggcctttg acagatcctt tgaggtgaac ctgcgtgcgg catccagtgt cacagattgt 360
ggcaggggct taatacccgg gagtcc                                      386

<210> 601
<211> 406
<212> DNA
<213> Homo sapiens

<400> 601
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ctaggagcgg ctctcggtgc agcgggacag ggcgaagcgg cctgcgccca cggagcgcgc 120
gacactgccc ggaagggacc gccacccttg ccccctcagc tgcccactcg tgatttccag 180
cggcctccgc gcgcgcacga tgccctcggc caccagccac agcgggagcg gcagcaagtc 240
gtccggaccg ccaccgccgt cgggttcctc cgggagtgag gcggccgcgg gagccggggc 300
cgccgcgccg gcttctagca ccccgcaacc ggcaccggcg ctgtccagac cgaggccatg 360
aagcagattc tcggggtgat cgacaagaaa cttcggaacc tggaga                406

<210> 602
<211> 365
<212> DNA
<213> Homo sapiens

<400> 602
gaattcggca cgaggctcgc ctcactagga gcggctctcg gtgcagcggg acagggcgaa 60
gcggcctgcg cccacggagc gcgcgacact gcccggaagg gaccgccacc cttgccccct 120
cagctgccca ctcgtgattt ccagcggcct ccgcgcgcgc acgatgccct cggccaccag 180
ccacagcggg agcggcagca agtcgtccgg accgccaccg ccgtcgggtt cctccgggag 240
tgaggcggcc gcgggagccg gggccgcgcg ccggcttcta gcaccccgca accggcaccg 300
gcgctgtcca gaccgaggcc atgaagcaga ttctcggggt gatcgacaag aaacttcgga 360
acctg                                                             365

<210> 603
<211> 376
<212> DNA
<213> Homo sapiens

<400> 603
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aggcgggtcg tgccggcggc cgctctagtc tccgcctccg ctcaggccgg tcctccgggg 120
cttctcaatg gtttcccggt ggcctctcaa tggttttccc ggcggccctt gcgccgacgc 180
caggagactt ccggagcttg gtgacgtcac agagcgagct tttctaccca aatacgcggc 240
gggggaatag gctcgagggc ggggagcagt gacaattgct aggcggagac agtgcaggga 300
agagagacct tataaaggat caggactggc gggaggtatt taactgaaag gaatatctgc 360
ttcactgttg caacca                                                 376
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<210> 604
<211> 385
<212> DNA
<213> Homo sapiens

<400> 604
gaattcggca cgaggcttgg gtccgtcgct gcttcggtgt ccctgtcggg cttcccagca 60
gcggcctagc gggaaaagta aaagatgtct gaatatattc gggtaaccga agatgagaac 120
gatgagccca ttgaaatacc atcggaagac gatgggacgg tgctgctctc cacggttaca 180
gcccagtttc caggggcgtg tgggcttcgc tacaggaatc cagtgtctca gtgtatgaga 240
ggtgtccggc tggtagaagg aattctgcat gccccagatg ctggctgggg aaatctggtg 300
tatgttgtca actatccaaa agataacaaa agaaaaatgg atgagacaga tgcttcatca 360
gcagtgaaag tgaaaagagc agtcc 385

<210> 605
<211> 395
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 375
<223> n = A,T,C or G

<400> 605
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cgccgccggc ctagttacca tcacaccccg ggaggagccg cagctgccgc agccggcccc 120
agtcaccatc accgcaacca tgagcagcga ggccgagacc cagcagccgc ccgccgcccc 180
ccccgccgcc cccgccctca gcgccgccga caccaagccc ggcactacgg gcagcggcgc 240
aaggagcggt ggcccgggcg gcctcacatt cggcggggcc ttgccggcgg ggacaaagaa 300
agggcattcg caacgaaggg ttttgggaaa caagtaaaat gggttcaatt gtaagggaac 360
cggattttgg ttttnattca accagggaaa ttgac 395

<210> 606
<211> 282
<212> DNA
<213> Homo sapiens

<400> 606
gaattcggca cgagggcagg ggtggtcctg gctggcattg cctgagccgg cagtgatgaa 60
gtggggagct tgcccttgac aggtgggggc tggctggggc cttaatgtga aaagacagtg 120
gcaggcagct ggagtagagc gagcccagca gccctaaaag gctgccttca tggccatcta 180
gccccagttc agggcagcat ccatagccca caagccagcg tgggtggggc gggggtggtc 240
ccacagctgg gttccacctg aagagcctcc gtgcctcgga gc 282

<210> 607
<211> 615
<212> DNA
<213> Homo sapiens

<400> 607
gaattcggca cgaggccggt cggcctgggc aacctgcgct gaagatgccg ggaaaactcc 60
gtagtgacgc tggtttggaa tcagacaccg caatgaaaaa aggggagaca ctgcgaaagc 120

aaaccgagga gaaagagaaa aaagagaagc caaaatctga taagactgaa gagatagcag 180
aagaggaaga aactgttttc cccaaagcta aacaagttaa aaagaaagca gagccttctg 240
aagttgacat gaattctcct aaatccaaaa aggcaaaaaa gaaagaggag ccatctcaaa 300
atgacatttc tcctaaaacc aaaagtttga gaaagaaaaa ggagcccatt gaaaagaaag 360
tggtttcttc taaaaccaaa aaagtgacaa aaaatgagga gccttctgag gaagaaatag 420
atgctcctaa gcccaagaag atgaagaaag aaaaggaaat gaatggagaa actagagaga 480
aaagccccaa actgaagaat ggatttcctc atcctgaacc ggactgtaac cccagtgaag 540
ctgccagtga agaaagtaac agtgagatag agcaggaaat cctgtggaac aaaaagaagg 600
cgctttctct atttt 615

<210> 608
<211> 316
<212> DNA
<213> Homo sapiens

<400> 608
gaattcggca cgaggagaaa gggaaaaaag gcgtaaagac agacatgaag caagtgggtt 60
tgcaaggaga ccagatccag attctgatga agatgaagat tatgagcgag agaggaggaa 120
aagaagtatg ggcggagctg ccattgcccc acccacttct ctggtagaga aagacaaaga 180
gttaccccga gatttccctt atgaagaagg actcaagacc tcgatcacag tctttccaag 240
cagccctttc ttcccccagt gtaccgaagg aaccaagaac agacccgaga atcttccacc 300
cggaccctta gcaaac 316

<210> 609
<211> 393
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 267
<223> n = A,T,C or G

<400> 609
gaattcggca cgagggtgaa accaacttat tgggctcaat cccatttggt cacaggatac 60
tgtacgtatc ttcctttcca gagatttgat atcacccaga caccgccagc atacataaac 120
gtgttaccag gtttgcccca gtacaccagc atatatacac ccttggccag cctttctcct 180
gaatatcagc taccaagatc agtaccagtg gtgccgtctt ttgtagccaa tgacagagca 240
gaaaaaaatg ctggctgcct attttgnggg gcattcattt tgaaatggct tgagaaatgg 300
ttggctgggt cacccagaat tggccttctt gaaaaccaca agaatccctt tggaaggggg 360
cttctttttg gggaaaataa tcttggtaaa aag 393

<210> 610
<211> 454
<212> DNA
<213> Homo sapiens

<400> 610
gaattcggca cgaggcagca atgcggtaga tatgacgtaa acaaattata attaagctag 60
tggatactca gagatcaaaa gaactgcaca ttgcattctg gagcatgaga aatcattttt 120
tttttcatga tgtctaactc tactgaattt attcaatgga gataacagaa agatgattat 180
atatgattaa attacttcca gtattagcag atgcttattt aaatacttgc ttgttctttc 240
tgcaattcca catagaatta aggcaatagt ttaaaagaaa atttaaaaag taacttttct 300
agcattttaa tgtagacctg tgaattctaa cacatttgca gtgtagccat cctaatgact 360

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aaccagactt gaacaaaatc caacttgcaa aaacgatgca atataaatac caatcaccaa 420
taataggtag tctcactttt aaaaacctgt gtct                             454

<210> 611
<211> 613
<212> DNA
<213> Homo sapiens

<400> 611
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cccccaccca ccagtcccgc tgcattctcg gccgggctct aggcgccatg gctccccgcg 120
ggaggaagcg taaggctgag gccgcggtgg tcgccgtagc cgagaagcga gagaagctgg 180
cgaacggcgg ggagggaatg gaggaggcga ccgttgttat cgagcattgc actagctgac 240
gcgtctatgg gcgcaacgcc gcggccctga gccaggcgct gcgcctggag gccccagagc 300
ttccagtaaa ggtgaacccg acgaagcccc ggaggggcag cttcgaggtg acgctgctgc 360
gcccggacgg cagcagtgcg gagctctgga ctgggattaa gaagggggccc ccacgcaaac 420
tcaaattccc tgagcctcaa gaggtggtgg aagagttgaa gaagtacctg tcgtagggag 480
atttgggtag aagccctcat gctgagcttt gtgtccctgg tgatgttgga acattaatga 540
tggaacatgg ccaaacttca gtcatgatcc tgaagccatg gtttcttccc tgccagaaat 600
gaaggttcat tat                                                    613

<210> 612
<211> 313
<212> DNA
<213> Homo sapiens

<400> 612
gaattcggca cgaggcgaga acgggcacgg ggagcagcag cctcaaccgc cggcgacgca 60
gcagcaacag ccccaacagc agcgcggggc cgccaaggag gccgcgggga agagcagcgg 120
ccccacctcg ctgttcgcgg tgacggtggc gccgcccggg gcgaggcagg gccagcagca 180
ggcgggaggt aagaagaagg cggaaggcgg cggaggcggc ggtcgccccg gggctccggc 240
ggcgggggac ggcaaaacag aacagaaagg cggagataaa aagaggggtg ttaaaagacc 300
accacaagat cat                                                    313

<210> 613
<211> 557
<212> DNA
<213> Homo sapiens

<400> 613
gaattcggca cgaggcctgg ccggggagac gagttgcatg tgttggttca gctggcgata 60
gcggcgggag cggagccggc ggggcctgtg cgaccgcctg ggtttgtgaa atggctgctg 120
acatttctga atccagcggg gctgactgca aaggagaccc aaggaacagt gccaagttag 180
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aatttgcaaa acttactgta gaaaattcac ccaaacaaga agctggaatt agtgagggtc 360
aaggaacagc aggggaagaa gaggagaaga aaaaacagaa gagaggtgga aggggtcaaa 420
taaaacaaaa aaagaagacc gtaccacaaa aggttactat agccaaaatt cccagagcaa 480
agaagaaata tgtgacaaga gtatgtggcc ttgcaacttt tgaaattgat cttaaagaag 540
cacaaagatt ttttgct                                                557

<210> 614
<211> 627
<212> DNA
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<213> Homo sapiens

<400> 614
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ctgcgcccac ggagcgcgcg acactgcccg gaagggaccg ccacccttgc cccctcagct 120
gcccactcgt gatttccagc ggcctccgcg cgcgcacgat gccctcggcc accagccaca 180
gcgggagcgg cagcaagtcg tccggaccgc caccgccgtc gggttcctcc gggagtgagg 240
cggccgcggg agccggggcc gccgcgccgg cttctcagca ccccgcaacc ggcaccggcg 300
ctgtccagac cgaggccatg aagcagattc tcggggtgat cgacaagaaa cttcggaacc 360
tggagaagaa aaagggtaag cttgatgatt accaggaacg aatgaacaaa ggggaaaggc 420
ttaatcaaga tcagctggat gccgtttcta agtaccagga agtcacaaat aatttggagt 480
ttgcaaaaga attacagagg agtttcatgg cactaagtca agatattcag aaaacaataa 540
agaagacagc acgtcgggag cagcttatga aaaaagaact gaacagaaac gtttaaaaac 600
ttgtacttga actacagtat tgtttgg                                     627

<210> 615
<211> 474
<212> DNA
<213> Homo sapiens

<400> 615
gaattcggca cgagggcgag aacgaccccc ggaccgacca aagcccgcgc gccgctgcat 60
cccgcgtcca gcacctacgt cccgctgccg tcgccgccgc caccatgccc aagagaaagg 120
ctgaagggga tgctaaggga gataaagcaa aggtgaagga cgaaccacag agaagatccg 180
cgaggttgtc tgctaaacct gctcctccaa agccagagcc caagcctaaa aaggcccctg 240
caaagaaggg agagaaggta cccaaaggga aaaagggaaa agctgatgct ggcaaggagg 300
ggaataaccc tgcagaaaat ggagatgcca aaacagacca ggcacagaaa gctgaaggtg 360
ctggagatgc caagtgaagt gtgtgcattt ttgataactg tgtacttctg gtgactgtac 420
agtttgaaat actatttttt atcaagtttt ataaaaatgc agaattttgg ttta       474

<210> 616
<211> 576
<212> DNA
<213> Homo sapiens

<400> 616
gaattcggca cgaggggaat ctgtgaagct cactactgga ccaaacaacg ctggagctca 60
aagtagttct tcatgtggga cttctggcct tccagtttct gcacagacag ccttggcaga 120
acaacagcca aaaagcatga aaagcccagc ttctccagag cctggtttct gtgctactct 180
ttgccctatg gtagaaattc cacctaaaga tataatggca gaattggagt cagaggatat 240
cttgatccct gaagaatctg taattcagga ggaaattgca gaagaggtag agactagtat 300
ctgtgaatgc caggatgaaa atcataagac aatacctgaa ttttctgagg aggctgaaag 360
tctaaccaat tctcatgaag aaccccaaat agcacctcct gaagataact tggaatcctg 420
tgttatgatg aatgatgttt tagaaacttt gcctcatatt gaagttaaga tagaagggaa 480
gtcagaatca ccccaggaag aaatgacagt tgttatcgat cagttagaag tctgtgactc 540
tcttattcct tccacttcat ctatgactca tgtcag                            576

<210> 617
<211> 514
<212> DNA
<213> Homo sapiens

<400> 617
gaattcggca cgaggcagag aggtttgcca aagagcgcag gctgagaata tggagagact 60
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atgtggctcc cacagctaat ttggaccaaa aggacaagca gtttgttgcc aaggtgatgc 120
aggttctgaa tgctgatgcc attgttgtga agctgaactc aggcgattac aagacgattc 180
acctgtccag catccgacca ccgaggctgg agggggagaa cacccaggat aagaacaaga 240
aactgcgtcc cctgtatgac attccttaca tgtttgaggc ccgggaattt cttcgaaaaa 300
agcttattgg gaagaaggtc aatgtgacgg tggactacat tagaccagcc agcccagcca 360
cagagacagt gcctgccttt tcagagcgta cctgtgccac tgtcaccatt ggaggaataa 420
acattgctga ggctcttgtc agcaaaggtc tagccacagt gatcagatac cggcaggatg 480
atgaccagag atcatcacac tacgatgaac tgct                             514

<210> 618
<211> 456
<212> DNA
<213> Homo sapiens

<400> 618
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gtgccccgca gcaggtgggc ggggtgcggt tggcggcggc ggctgggccg gggctgccg 120
gctgcgctcg ggccgtgcgc ggcggccgtg cgggcacgcc atggacttca acatgaagaa 180
gctggcgtcg gacgcgggca tcttcttcac ccgggcggtg cagttcacgg aggagaaatt 240
tggccaggct gagaagactg agcttgatgc ccactttgaa aaccttctgg cccgggcaga 300
cagcaccaag aactggacag agaagatctt gaggcagaca gaggtgctgc tgcagcccaa 360
ccccagtgcc cgagtggagg agttcctgta tgagaagctg gacaggaagg tcccctcaag 420
ggtcaccaac ggggagctgc tggctcagta catggc                           456

<210> 619
<211> 262
<212> DNA
<213> Homo sapiens

<400> 619
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gtagttcggg cggcaagaaa tgctacaagc tggagaatga gaagctgttc gaagagttcc 120
ttgaactttg taagatgcag acagcagacc accctgaggt ggtcccattc ctctataacc 180
ggcagcaacg tgcccactct ctgtttttgg cctcggcgga gttctgcaac atcctctcta 240
gggtcctgtc tcgggcccgg ac                                          262

<210> 620
<211> 205
<212> DNA
<213> Homo sapiens

<400> 620
gaattcggca cgaggattta tgggccactg cacatgcccg ctgcagccct gggatcagct 60
ggaagctgcc tgtcatctcc tgcccaatcc ccagaaaccc tgattcaggt ctgcaggctc 120
ctgcgggctc accaggctgc tggctccggt accatgtaaa cctaggaagg taaaggagca 180
ggcaacctcc tcgtggcctg tgtgt                                       205

<210> 621
<211> 483
<212> DNA
<213> Homo sapiens

<400> 621
gaattcggca cgaggcctgg ccgggaccgt gtgggccgtg aggatgagga cggctgggag 60
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acgcgagggg accgcaaggc ccggaagccc ctggtggaga agaagcggcg cgcgcggatc 120
aacgagagcc tgcaggagct gcggctgctg ctggcgggcg ccgaggtgca ggccaagctg 180
gagaacgccg aagtgctgga gctgacggtg cggcgggtcc agggtgtgct gcggggccgg 240
gcgcgcgagc gcgagcagct gcaggcggaa gcgagcgaac gcttcgctgc cggctacatc 300
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ctgccgagct cctgaaccat ctgctcgagt ccatgccgct gcgtgagggc agcaacttca 420
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cgg 483

<210> 622
<211> 562
<212> DNA
<213> Homo sapiens

<400> 622
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cgctgccgaa gtgcaaggcc acggccagag ctcgagcccg acgcgctgtc tggagtcgta 300
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tgagcggcag cgcgtggacg tcaaggtggt gatgctgggc aaggagtacg tgggcaagac 480
tagcctggtg gagcgctacg tgcacgaccg ctttctggtg gggccttatc agaacaccat 540
cggggccgcc ttcgtggcca ag 562

<210> 623
<211> 645
<212> DNA
<213> Homo sapiens

<400> 623
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cgaggaccag gggtcgggcg ggcctgccta cggaaccccg cgggccagca gcagtcgtct 180
cgcgtcctcc tgcttggaaa agtgtttaag cttctaaaat gtcatctatc aagcacctgg 240
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agaatgacgt tctgcccctt tcaaactcag tgcctgaaga tgtgggaaaa gctgaccaat 480
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acacacaggc aatagaattg gatcccaata atgcagttta ctattgcaac agggctgctg 600
ctcagagcaa attaggtcac tacacagatg cgataaagga ttgtg 645

<210> 624
<211> 521
<212> DNA
<213> Homo sapiens

<400> 624
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tgcgggcaga gttccggcag catgcggccc tgccgcggtc cgacgtgctg cgcatcgagt 180
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ccgacggacg gtgacaggcg aagagccgaa ctcgctcgat ggcgtggtgg agccaggagg 420
ctcgcctgac tgcatggggg gactggggaa cccgcctaag gtgagaggtc ttaagagact 480
agcttgacga attggggatg tcagagactc ctccttggcg a 521

<210> 625
<211> 375
<212> DNA
<213> Homo sapiens

<400> 625
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cggttggtgg tggcggtgga cattgcagcg cggctggagg gggtccttag acaaggtgca 300
agacaaacag aagagggcat gtggggtcaa actcctactg cctgcctgat tttctgccac 360
aggacaaatt cacca 375

<210> 626
<211> 628
<212> DNA
<213> Homo sapiens

<400> 626
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gccatcaagg gtatgcatat acgaaaagcc acgaagtatc tgaaagatgt cactttacag 180
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gagcatatcc aagtgaacaa agcacctaag atgcgccgcc ggacctacag agctcatggt 420
cggattaacc catacatgag ctctccctgc cacattgaga tgatccttac ggaaaaggaa 480
cagattgttc ctaaaccaga agaggaggtt gcccagaaga aaaagatatc ccagaagaaa 540
ctgaagaaac caaaacttat ggcacgggag taaattctca ttaaaataaa tgtaattaaa 600
aggaaaaaaa aaaaaaaaaa aactcgag 628

<210> 627
<211> 645
<212> DNA
<213> Homo sapiens

<400> 627
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aaacgcagat ggtcaaagtg atgagaacaa ggacgactat acaatcccag atgagtatag 180
aattggacca tatcagccca atgttcctgt tggtatagac tatgtgatac ctaaaacagg 240
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actattgtac tcttttgttt tagtggagaa ataatagatg tctgttcatg tgttaagtgt 540
tatagcaaaa aaaatacaca tatggttaag ttaatgaata gtttttgttt tatcagaatg 600

gcaacagaca gaagtacttt gtagagattg acttcctaag ctctt 645

<210> 628
<211> 625
<212> DNA
<213> Homo sapiens

<400> 628
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accgaggaaa aggaatcgta tcgtatgtcc gctatccaga acctccactc tttcgacccc 180
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gattacgata aaaagaaact agtgaaggcg tttaagaaaa agtttgcctg caatggtact 360
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atatgccagt tcctcgtaga gattggactg gctaaggacg atcagctgaa ggttcatggg 480
ttttaagtgc ttgtggctca ctgaagctta agtgaggatt tccttgcaat gagtagaatt 540
tcccttctct tccttgtcac aggtttaaaa acctcacagc ttgtataatg taaccatttg 600
gggtccgctt ttaacttgga ctagt 625

<210> 629
<211> 545
<212> DNA
<213> Homo sapiens

<400> 629
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agcccccag tcctggatgg tggtaaagaa tcctcaagat caaacccacg cagtgctgag 180
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ttcttgcaag cactaggagg aagggtggtg ggttgctggg aacagcaccg agcgccctcc 480
ccacccagat tcacagagca cactccccgg ggggatactt taatccggag gccgtgacgc 540
ctgct 545

<210> 630
<211> 605
<212> DNA
<213> Homo sapiens

<400> 630
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aagggtactc caggcgagag gcggacgcga gtcgtcgtgg caggaaaagt gactagctcc 120
ccttcgttgt cagccaggga cgagaacaca gccacgctcc cacccggctg ccaacgatcc 180
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tacagggttt atttggtcaa gatactcact tgtaattatt ccaaaaaatt ggagtctgtt 480
tgctgttaat ttctttgtgg gggcagcagg agcctctcag ctttttcgta tttggagata 540
taaccaagac taaaagctaa agcacacaaa taaaagagtt ctgatcacct gaacaatcta 600
gatgt 605

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<210> 631
<211> 364
<212> DNA
<213> Homo sapiens

<400> 631
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tccagaagag gagaagagga aacacaagaa gaaacgcctg gtgcagagcc ccaattccta 120
cttcatggat gtgaaatgcc caggatgcta taaaatcacc acggtcttta gccatgcaca 180
aacggtagtt ttgtgtgttg gctgctccac tgtcctctgc cagcctacag gaggaaaagc 240
aaggcttaca gaaggatgtt ccttcaggag gaagcagcac taaaagcact ctgagtcaag 300
atgagtggga aaccatctca ataaacacat tttggataaa aaaaaaaaaa aaaaaaaact 360
cgag                                                              364

<210> 632
<211> 545
<212> DNA
<213> Homo sapiens

<400> 632
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agttaccatc acaccccggg aggagccgca gctgccgcag ccggccccag tcaccatcac 120
cgcaaccatg agcagcgagg ccgagaccca gcagccgccc gccgcccccc ccgccgcccc 180
cgccctcagc gccgccgaca ccaagcccgg cactacgggc agcggcgcag ggagcggtgg 240
cccgggcggc ctcacatcgg cggcgcctgc cggcggggac aagaaggtca tcgcaacgaa 300
ggttttggga acagtaaaat ggttcaatgt aaggaacgga tatggtttca tcaacaggaa 360
tgacaccaag gaagatgtat ttgtacacca gactgccata aagaagaata accccaggaa 420
gtaccttcgc agtgtaggag atggagagac tgtggagttt gatgttgttg aaggagaaaa 480
gggtgcggag gcagcaaatg ttacaggtcc tggtggtgtt ccagttcaag gcagtaaata 540
tgcag                                                             545

<210> 633
<211> 506
<212> DNA
<213> Homo sapiens

<400> 633
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aaaaagcaat cagcaattgg acaggaaaag aatggcattg aagcagattt ccagcaacaa 120
gtgctttggg ggattgcaga aagtttttga acatgacagt gttgaactaa actgcaaaat 180
gaaatttgct gtctacttac caccaaaggc agaaacagga aagtgccctg cactgtattg 240
gctctcaggt ttaacttgca cagagcaaaa ttttatatca aaatctggtt atcatcagtc 300
tgcttcagaa catggtcttg ttgtcattgc tccagatacc agccctcgtg gctgcaatat 360
taaaggtgaa gatgagagct gggactttgg cactggtgct ggattttatg ttgatgccac 420
tgaagatcct tggaaaacca actacagaat gtactcttat gtcacagagg agcttcccca 480
actcataaat gccaattttc cagtgg                                      506

<210> 634
<211> 485
<212> DNA
<213> Homo sapiens

<400> 634
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gcatagcctg catagtgtcc tggcgctggg agttccccgt ggacagagcc agagggcagt 180
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gtggccttga ggcaagagcc gtgcctcact gacccccagg ggcctcatcc tccccatgga 420
atgggctgta tgtcctgccc caacttggcc cgcagcaggc cagaccccccc tacccccgcc 480
cagag                                                              485

<210> 635
<211> 615
<212> DNA
<213> Homo sapiens

<400> 635
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gttggggagc gagtgccata cgtcatcatt tatgggaccc ccggagtacc acttatccag 120
cttgtaaggc gcccagtgga agtcctgcag gacccaactc tgagactgaa tgctacttac 180
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gaacctgaag ggcggaaagg cactatttca caatatttta ctaccttaca ctgtcctgtg 360
tgtgatgacc taactcagca tggcatctgt agtaaatgtc ggagccaacc tcagcatgtt 420
gcagtcatcc tcaaccaaga aatccgggag ttggaacgtc aacaggagca acttgtaaag 480
atatgcaaga actgtacagg ttgctttgat cgacacatcc catgtgtttc tctgaactgc 540
ccagtacttt tcaaactctt ccgagtaaat agagaattgt ccaaggcacc atatcttcgg 600
cagttattaa accag                                                   615

<210> 636
<211> 504
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 12
<223> n = A,T,C or G

<400> 636
gaattcggca cnaggccaaa acctgtttgg gaagcatatt acagaaatga tttcaagtac 60
cctgtattct ggatgctaaa aaacaaaaac aaacaaaaaa acaaaaacaa aaaaacaaaa 120
ccagaatcag gtaaaacagc tatgtgatta aaatatttta attcttcagc aattacccgg 180
ttttctaaat tgaatcatgc atctatttat aattctaatt attttgtaaa agaagacaaa 240
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aattcatctc cacatggagc caagtttaat gtttctagtt cacattttgt acttctgtca 360
tgcttatttc aaactccctg agtgatgggt aagaaatcaa acattgcctc agtggtatca 420
agagaacttt ggtggtggtt tcttcagaat catgaagttc ttttgccaga taaatatttt 480
gatattattt tcctttttaa tata                                        504

<210> 637
<211> 449
<212> DNA
<213> Homo sapiens
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<400> 637
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attatccgaa atgtttcatt gtgggagcag acaatgtggg ctccaagcag atgcagcaga 180
tccgcatgtc ccttcgcggg aaggctgtgg tgctgatggg caagaacacc atgatgcgca 240
aggccatccg agggcacctg gaaaacaacc cagctctgga gaaactgctg cctcatatcc 300
gggggaatgt gggctttgtg ttcaccaagg aggacctcac tgagatcagg gacatgttgc 360
tggccaataa ggtgccagct gctgccgtgc tggtgccatt gccccatgtg aagtcactgt 420
gccagcccag aacactggtc tcgggcccg                                  449

<210> 638
<211> 524
<212> DNA
<213> Homo sapiens

<400> 638
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gcaccccagg tttccacagc tgtagttgag ccctacaact ccatcctcac cacccacacc 120
accctggagc actctgattg tgccttcatg gtagacaatg aggccatcta tgacatctgt 180
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cctgtcatct ctgctgagaa agcctaccat gaacagcttt ctgtagcaga gatcaccaat 420
gcttgctttg agccagccaa ccagatggtg aaatgtgacc ctcgccatgg taaatacatg 480
gcttgctgcc tgttgtaccg tggtgacgtg gttcccaaag atgt                 524

<210> 639
<211> 524
<212> DNA
<213> Homo sapiens

<400> 639
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caaatgttga gcacatcaat ccccatttg tagacgaaga gacagagttg agtgacttgc 120
ccaaagacac agggccagtg aggagttgtg caggtttgcc ctggcattaa aataataaac 180
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<210> 640
<211> 524
<212> DNA
<213> Homo sapiens

<400> 640
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ggcagtcagc actgaccccc ctcaccatga ccatcatgat gagttttgcc ttatgccctg 420
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ttcatgatgt gcccttgttg taaaccttta cctgtcactt gttt 524

<210> 641
<211> 523
<212> DNA
<213> Homo sapiens

<400> 641
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cccgggtctt cactggccga ggtgcccacc ccgcagcatt ctgggagtgg tagttttctt 180
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atgatcgtgt cttctgcact catgatatgg aaaggcttga tcg 523

<210> 642
<211> 524
<212> DNA
<213> Homo sapiens

<400> 642
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<210> 643
<211> 523
<212> DNA
<213> Homo sapiens

<400> 643
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agacccgcgc ttccccgcca gttctttttc ttcaggatca ggc 523

<210> 644
<211> 525

<212> DNA
<213> Homo sapiens

<400> 644
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ggagtgaaac aagggctgca ggaaagcgcc cagctgagga tgatgtaccc aggaaagcca 120
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gggacattga agacattcct tatgtgtagt gtccctggca ggcatttacc aggccatgtg 420
ctttaacgtt cggtaatact ttactttagg catccctcct gttgctagca gccttttgac 480
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<210> 645
<211> 358
<212> DNA
<213> Homo sapiens

<400> 645
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cgcccgccgt tcgtagcatg tcccccagaa ctcggggagc gcaggcagga caggcttaga 180
gaagacgcgg tccccagcgc ttgggccacg gacgtcccac cccgctcctc tgtcgctgga 240
gaaccgccgg gccgagccac tgggagaagc aggccagagc cttccagggc ctccggcccg 300
tggacccgag gaggatgagc tggctttttc ccctgaccaa gagcgcctcc tcctccgc 358

<210> 646
<211> 420
<212> DNA
<213> Homo sapiens

<400> 646
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tgcagcgggc aaagagctcc cgaggaagca cagcttgggt caggttcttg cctttcttaa 120
ttttagggac agctaccgga aggaggggaa caaggagttc tcttccgcag cccctttccc 180
cacgcccacc cccagtctcc agggaccctt gcctgcctcc taggctggaa gccatggtcc 240
cgaagtgtag ggcaagggtg cctcaggacc ttttggtctt cagcctccct cagcccccag 300
gatctgggtt aggtggccgt cctcctgctc ctcatgggaa gatgtctcag agccttcatg 360
acctcccctc cccaacccaa tgccaaagtg gacttgggag ctgcacaaag tcagcaggga 420

<210> 647
<211> 518
<212> DNA
<213> Homo sapiens

<400> 647
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tcggccagtt tcgagccttt cagcaacaaa ggccagacgc tggtggtgca gttcacggtg 360
aaacatgagc agaacatcga ctgtgggggc ggctatgtga agctgtttcc taatagtttg 420

gaccagacag acatgcacgg agactcagaa tacaacatca tgtttggtcc cgacatctgt 480
ggcctgcacc aaaaagggtc atgtcatctt caactaca 518

<210> 648
<211> 561
<212> DNA
<213> Homo sapiens

<400> 648
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accccсgccc ccccaaagtg gctctgtggg aagtttgtcc tccgtccatt gcgaccatgc 120
cgcaaaaact ctactttagg cagctctggg ttgactactg gcaaaattgc tggagctggc 180
cttttgtttg ttggtggagg tattggtggc actatcctat atgccaaatg ggattcccat 240
ttccgggaaa gtgtagagaa aaccatacct tactcagaca aactcttcga gatgggtctt 300
ggtcctgcag cttataatgt tccattgcca aagaaatcga ttcagtcggg tccactaaaa 360
atctctagtg tatcagaagt aatgaaagaa tctaaacagc ctgcctcaca actccaaaaa 420
caaaagggag atactccagc ttcagcaaca gcaggtgata ccctgtcggt cccagcccct 480
gcagttcagc ctgaggaatc tttaaaaact gatcaccctg aaattggtga aggaaaaccc 540
acacctgcac tttcagaaga a 561

<210> 649
<211> 428
<212> DNA
<213> Homo sapiens

<400> 649
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gcaggagagt aattatgaat agcgcagcgg gattctcaca cctagaccgt cgcgagcggg 120
ttctcaagtt aggggagagt ttcgagaaac acccgcgctt gcgccttcca cactgtgcgc 180
tatgacttca aacctgcttc tattgacact tcttctgaag gataccttga ggttggtgaa 240
ggtgaacagg tgaccataac tctgccaaat atagaaggtt caactccacc agtaactgtt 300
ttcaaaggtt caaaaaacct tacttaaaag aatgcatttt gattattaac catgatactg 360
gagaatgtcg gctagaaaaa ctcagcagca acatcactgt aaaaaaaaca agagttgaag 420
gaagcagt 428

<210> 650
<211> 428
<212> DNA
<213> Homo sapiens

<400> 650
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gagggcccag gccctggccg acgcgcccgc cgtgagcgag gaggcccgaa tccgggcgtc 120
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aaaagtatag ggtggaatcg ggcctactag gtacccctag tagtagggaa gggtggtatt 360
agaccgagag ggaatgttta caactagcgt tacagtttaa tatttgaaaa tccaaagcgg 420
aagactgg 428

<210> 651
<211> 341
<212> DNA
<213> Homo sapiens

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<400> 651
gaattcggca cgagggccgg gccgtgggtg acacgtaagt tgggcaggag gtggcggggc 60
ggcagaggca ccagccgacc cgtcagtgac accgctgtgc cgtccccaaa accagccgag 120
acagctggcc cccacccttc cacccattgg gcaggccgca cgggggcgcg gcccggagtc 180
ctggtccctt tgttgggcgc gcacccccctc ccttaggtgg caacaaagtc gtgcagtggg 240
agccgccgcg atagggcggg gagtggccag ggcgggactc caagaactgc ccgggggcag 300
cggggccaaa aagtgggaag aaggaaaaaa ggcaggaggc a                     341

<210> 652
<211> 669
<212> DNA
<213> Homo sapiens

<400> 652
gaattcggca cgagggaaaa tttgtgctct ggagagaact gttaaagctc tagaatttgt 60
tcaaactgaa tctcaaaaag atttggaaat aaccaaagaa aatctggctc aagcagttga 120
acaccgcaaa aaggcacaag cagaattagc tagcttcaaa gtcctgctag atgacactca 180
aagtgaagca gcaagggtcc tagcagacaa tctcaagttg aaaaaggaac ttcagtcaaa 240
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gaaagacaag gaagttcagc aacttcagga aaacttggac agtactgtga cccagcttgc 480
agcctttact aagagcatgt cttccctcca ggatgatcgt gacagggtga tagatgaagc 540
taagaaatgg gagaggaagt ttagtgatgc gattcaaagc aaagaagaag aaattagact 600
caaagaagat aattgcagtg gtctaaagga tcaacttaaa cagatgtcat tcatatggaa 660
gaattaaga                                                         669

<210> 653
<211> 322
<212> DNA
<213> Homo sapiens

<400> 653
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gactgcccat ctggatgagg aggtaaataa aggtgacatc ctggtggttg caactggtca 120
gcctgaaatg gttaaagggg agtggatcaa acctggggca atagtcatcg actgtggaat 180
caattatgtc ccagatgata aaaaaccaaa tgggagaaaa gttgtgggtg atgtggcata 240
cgacgaggcc aaagagaggg cgagcttcat cactcctgtt cctggcggcg tagggcccat 300
gacagttgca atgctcatgc ag                                          322

<210> 654
<211> 332
<212> DNA
<213> Homo sapiens

<400> 654
gaattcggca cgagggcggg aagcagctct tgtggatcct cagtggcgga ggctcggtca 60
cccggatagg taaaggaaaa catgcctgcc acacggaagc caatgagata tgggcataca 120
gagggacaca cggaggtctg ttttgatgat tctgggagtt ttattgtgac ttgtggaagt 180
gatggtgatg tgaggatttg ggaagacttg gatgatgatg atcctaagtt cattaatgtt 240
ggagaaaagg catattcatg tgctttgaag agtggaaaac tggtcactgc agtttctaat 300
aatactattc aagtccacac atttcctgaa gg                               332
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<210> 655
<211> 573
<212> DNA
<213> Homo sapiens

<400> 655
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ctactgtcaa gggatgatct gagcctgaac aactcagtga atgtgaagag aaaacaagat 120
tacatgtgaa tatagatgtt aactggaaaa gcaaggagaa aaaaagggag cacaaggaag 180
aaaaaaaaat caaaatttgt gagccatctc aagccatcaa aaaaacttca ttctattgta 240
ggagggaagc tggaaacaat ggcagagtaa ttttgtgtta agaattaaag tactagctcc 300
agttaggcat ataaatgaca attagaaggg acagaagtta tggttatgtc agcagcctcc 360
agtgagctag gatataaact aagtcttttc aagctgaaca aatatataca cattcaaccc 420
atttaagtga agagacacat ttaagtccac aaaagcaaac ttaactacct actatataac 480
ttacttttta ttgaaagtat cttgcattca tgatggatgc tttctgggtt ttaccacata 540
ttttaatggt aaaagttaaa ttattcttta cat 573

<210> 656
<211> 462
<212> DNA
<213> Homo sapiens

<400> 656
gaattcggca cgaggaagaa acttggagga caggtcgata ggtgcggcaa accaccatag 60
tacacatata cctatgtaac aaacctccac attctgcaca tgtgtcccag aacttaaagt 120
aaaatttaaa aaaaaagaaa agaaatatcc agaaagatta tccagcctca aggtttatat 180
tataatggct ataaacaaca aaacataaac ctattttcca aaggtttcca aatatactac 240
cgaagaaaca aacataaaaa acgactttga tatttctaaa aagcataact taaaatttaa 300
aaaaaaagtt aatgaaaaaa caaacactca atggttactg ccttacttta agaaaaaaac 360
atttagttaa gcacattttc ccccaaagct atttaaacac caagattcag aagtaaacct 420
tatttagatg agtttctagt caacgaattg acctacataa tc 462

<210> 657
<211> 383
<212> DNA
<213> Homo sapiens

<400> 657
gaattcggca cgagggaaga gcggagagct ggagcaggag gaggagcggc tctccaagga 60
gtgggaggac tccaaacgct ggagcaagat ggaccagctg gccaaggagc tgacggctga 120
gaagcggctg gaggggcagg aggaggagga ggacaaccgg gacagttcca tgaagctctc 180
cttccgggcc cgggcctacg gcttcagggg ccctgggccg cagctgcgac gaggctggag 240
gccatcctcc cgggaggaca agccttgagg cgggcctgcc ctccaggtcc gaggctaccc 300
cgaggagaag aaagaggagg agggcagcgc aaaccgcaga ccagaggacc aggagctgga 360
gagcctgtcg gccattgagg cag 383

<210> 658
<211> 540
<212> DNA
<213> Homo sapiens

<400> 658
gaattcggca cgaggtttcg agtcagtgct gccgccgctg cccgcggctt tgcagagcag 60
gatgaatgtg atagaccacg tgcgggacat ggcggccgcg gggctgcact ccaacgtgcg 120

gctcctcagc agcttgttac ttacaatgag taataacaac cctgagttat tctccccacc 180
tcagaagtac cagcttttgg tgtatcatgc agattctctc tttcatgata aggaatatcg 240
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aaaagtgaga ccttcaactg gaaattctgc atctactcca caaagtcagt gtcttccatc 360
tgaaattgaa gtgaaataca aaatggctga atgttataca atgctaaaac aagataaaga 420
tgccattgct atacttgatg ggatcccttc aagacaaaga actcccaaaa taaacatgat 480
gctggcaaac ctgtcaagaa ggctggtcag gagcgccctt cagtcaccag ctataaggag 540

<210> 659
<211> 366
<212> DNA
<213> Homo sapiens

<400> 659
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ccgcggggaa aatggtggag ccagggcaag atttactgct tgctgctttg agtgagagtg 120
gaattagtcc gaatgacctc tttgatattg atggtggaga tgcagggctt gcaactccaa 180
tgcctacccc gtcagttcag cagcagcagc ctccatctac tacaacattt gtgctgaatc 240
aaataaatca tcttccaccc ttgggatcta caattgtaat gactaaaaca ccacctgtaa 300
caaccaacag gcaaaaccat cactttaact aagtttatcc agactactgc aagccacgcc 360
ccgtca 366

<210> 660
<211> 514
<212> DNA
<213> Homo sapiens

<400> 660
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actgctgaag aacaagaaga aaattttgag tttatcattg tgtccctcac tggccaaaca 120
tggcactttt gaagccacga cgtatgagga gcgggacgct gggtccaagc catcgagagc 180
cagatcctgg ccagcctgca gtcgtgcgag agcagcaaga acaagtcccg gctgacgagc 240
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gactgcgaga cccagaatcc caactgggcc agtttgaact tgggagccct catgtgcatc 360
gaatgctcag ggatccaccg gaatcttggc acccaccttt cccgagtccg atctctggac 420
ctggatgact ggccaatcga gctcatcaag gtgatgtcat ccatcgggaa cgagctagcc 480
aacagcgtct gggaagagag cagccagggg cgga 514

<210> 661
<211> 515
<212> DNA
<213> Homo sapiens

<400> 661
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gatgctggcc aagcagtacg gacacatgaa gatcgtggcc ttgatggaca cttactcgcc 120
ctctctgccc aagagcctct atcggagccc agaaaagtac gaagatctga gctcttctga 180
cgagtcctgc cctgctcctc agagacagag gccttgccgg aagaagggtg tcagcatcca 240
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gcctcgctat gagcaggctc ctccccgtgg ctatgtcacc ttcaacagca gtggcgagaa 360
cccccctggaa gaagagggcc tctgctgccg ggatgtcacc tcccccatca atgagcggga 420
cgtggagagc agcagcagca gcagcagtcg ggaggaacat gctttctgtg ccaacctggg 480
gcccgtccag agcagcagca gcagcgaggg cctgg 515

<210> 662
<211> 570
<212> DNA
<213> Homo sapiens

<400> 662
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gagaggtcgg aggagcggta actaccccgg ctgcgcacag ctcggcgctc cttcccgctc 120
cctcacacac cggcctcagc ccgcaccggc agtagaagat ggtgaaagaa acaacttact 180
acgatgtttt gggggtcaaa cccaatgcta ctcaggaaga attgaaaaag gcttatagga 240
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tacatcagct ctcagtaacc ctagaagact tatataatgg tgcaacaaag aaaactggct 540
ctgcaaaaga atgtgatttg tgacaaatgt 570

<210> 663
<211> 307
<212> DNA
<213> Homo sapiens

<400> 663
gaattcggca cgagggcgcg gaggggctgg ctgggcagga ggggttggcg gggcagcagg 60
gccgcggcca tggggagctt gaaggaggag ctgctcaaag ccatctggca cgccttcacc 120
gcactcgacc aggaccacag cggcaaggtc tccaagtccc agctcaaggt cctttcccat 180
aacctgtgca cggtgctgaa ggttcctcat gacccagttg cccttgaaga gcacttcagg 240
gatgatgatg agggtccagt gtccaaccag ggctacatgc cttatttaaa caggttcatt 300
ttggaaa 307

<210> 664
<211> 496
<212> DNA
<213> Homo sapiens

<400> 664
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cgggtgcctg ggctggtggg aacagccgcc cgaaggaagc accatgattt cggccgcgca 120
gttgttggat gagttaatgg gccgggaccg aaacctagcc ccggacgaga agcgcagcaa 180
cgtgcggtgg gaccacgaga gcgtttgtaa atattatctc tgtggttttt gtcctgcgga 240
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gcgatactta cagagcttac ttgcagaagt agaacgtagg atcagacgag gccatgctcg 420
tttggcatta tctcaaaacc agcagtcttc tggggccgct ggcccaacag gcaaaaaaaa 480
aaaaaaaaaa ctcgag 496

<210> 665
<211> 517
<212> DNA
<213> Homo sapiens

<400> 665
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gacagacccg cccctctatt cgagccagcc caactcggag aactcagagt catcctcgag 120

agtaaagaaa gctcttagag ttttttttt tttgacaaat ctatcttaaa tgtcagtcca 180
atatccacgg cgacgagcca cagcaggtga gaaacctgga aatgagcctg aagaggtgaa 240
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acatgtgctt ggtttctagc cttcctctta gtataggacg catctcccaa atgttgccag 480
taaagcaaac ccgaagtggc acccggccct aacttgt 517

<210> 666
<211> 616
<212> DNA
<213> Homo sapiens

<400> 666
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gtctgaagat gccctcggcc accagccaca gcgggagcgg cagcaagtcg tccggaccgc 120
caccgccgtc gggttcctcc gggagtgagg cggccgcggg agccggggcc gccgcgccgg 180
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agtaccagga agtcacaaat aatttggagt ttgcaaaaga attacagagg agtttcatgg 420
cactaagtca agatattcag aaaacaataa agaagacagc acgtcgggag cagcttatga 480
gagaagaagc tgaacagaaa cgtttaaaaa ctgtacttga gctacagtat gttttggaca 540
aattgggaga tgatgaaagt gcggacttga cctgaaacaa gggttgaatg ggagtggcaa 600
tattgtccga agagga 616

<210> 667
<211> 596
<212> DNA
<213> Homo sapiens

<400> 667
gaattcggca cgagggaaaa ttagtgctct ggagagaact gttaaagctc tagaatttgt 60
tcaaactgaa tctcaaaaag atttggaaat aaccaaagaa aatctggctc aagcagttga 120
acaccgcaaa aaggcacaag cagaattagc tagcttcaaa gtcctgctag atgacactca 180
aagtgaagca gcaagggtcc tagcagacaa tctcaagttg aaaaaggaac ttcagtcaaa 240
taaagaatca gttaaaagcc agatgaaaca aaaggatgaa gatcttgagc gaagactgga 300
acaggcagaa gagaagcacc tgaaagagaa gaagaatatg caagagaaac tggatgcttt 360
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gaaagacaag gaagttcagc aacttcagga aaacttggac agtactgtga cccagcttgc 480
agcctttact aagagcatgt cttccctcca ggatgatcgt gacagggtga tagatgaagc 540
taagaaatgg gagaggaagt ttagtgatgc gattcaaagc aaagaagaag aaatta 596

<210> 668
<211> 297
<212> DNA
<213> Homo sapiens

<400> 668
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tcaagtggga atcctgtata tgaaaaatac tatagacagg ttgatacagg caatactgga 120
agggtgttgg cttctgatgc tgctgctttc ctgaaaaaat cagggcttcc agacttgata 180
cttggaaaga tttgggattt agccgacaca gatggcaaag gtatcctgaa caaacaagaa 240
ttctttgttg ctttgcgtct tgtggcatgt gcccagaatg gattggaagt ttcacta 297

<210> 669
<211> 458
<212> DNA
<213> Homo sapiens

<400> 669
ggcacgaggg atcggtcgcc tgagaggtat cacctcttct gggctcaaga tggacaacaa 60
gaagcgcctg gcctacgcca tcatccagtt cctgcatgac cagctccggc acgggggcct 120
ctcgtccgat gctcaggaga gcttggaagt cgccatccag tgcctggaga ctgcgtttgg 180
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cgaggaggac tcagcagagg cagagcgcct caaaaccgaa ggaaacgagc agatgaaagt 360
ggaaaacttt gaagctgccg tgcatttcta cggaaaagcc atcgagctca acccagccaa 420
cgccgtctat ttctgcaaca gagccgcagc ctacagca 458

<210> 670
<211> 634
<212> DNA
<213> Homo sapiens

<400> 670
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tgtcgccccc gcccctctct tccctggctg gacttgcgga gtccccgccg aagaacccga 120
ggagccatat attgaagacc atgtctggaa gcttctactt tgtaattgtt ggtcaccatg 180
ataatccagt ttttgaaatg gagtttttgc cagctgggaa ggcagaatcc aaagacgacc 240
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ggctgtcgaa caacatgtac ttgaaaactg tggacaagtt caacgagtgg tttgtgtcaa 360
catttgtcac cgcggggcat atgagggtta ttatgcttca tgacataaga caagaagatg 420
gaataaagaa cttctttact gatggttatg atttatatat aaaattttca atgaatccat 480
tttatgaacc caattcttct attcgatcaa gtgcatttga cagaaaagtt caatttcttg 540
ggaagaaacc cttttaaagc tgaatggaga aaattccaaa taaattatat caccaccatg 600
gtgtatactc aaaaaaaaaa aaaaaaaact cgag 634

<210> 671
<211> 517
<212> DNA
<213> Homo sapiens

<400> 671
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tcagacccct gcccagctgt acacactgca gcccaagctt cccatcacag ttctaaatgg 120
agcccctgga tttataaact tgtgcgatgc tttgaacgcc tggcagctgg tgaaggaact 180
caaggaggct ttaggtattc cagccgctgc ctctttcaaa catgtcagcc cagcaggtgc 240
tgctgttgga attccactca gtgaagatga ggccaaagtc tgcatggttt atgatctcta 300
taaaaccctc acacccatct cagcggcata tgcaagagca agaggggctg ataggatgtc 360
ttcatttggt gattttgttg cattgtccga tgtttgtgat gtaccaactg caaaaattat 420
ttccagagaa gtatctgatg gtataattgc cccaggatat gaagaagaag ccttgacaat 480
actttccaaa aagaaaaatg gaaactattg tgtcctt 517

<210> 672
<211> 516
<212> DNA
<213> Homo sapiens

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<400> 672
aattcggcac gagggtttaa acagatttct caagcttacg aagttctctc tgatgcaaag 60
aaaagggaat tatatgacaa aggaggagaa caggcaatta aagagggtgg agcaggtggc 120
ggttttggct cccccatgga catctttgat atgttttttg gaggaggagg aaggatgcag 180
agagaaagga gaggtaaaaa tgttgtacat cagctctcag taaccctaga agacttatat 240
aatggtgcaa caagaaaact ggctctgcaa aagaatgtga tttgtgacaa atgtgaaggt 300
agaggaggta agaaaggagc agtagagtgc tgtcccaatt gccgaggtac tggaatgcaa 360
ataagaattc atcagatagg acctggaatg gttcagcaaa ttcagtctgt gtgcatggag 420
tgccagggcc atggggagcg gatcagtcct aaagatagat gtaaaagctg caacggaagg 480
aagatagttc gagagaagaa aattttaaaa gttcat                          516

<210> 673
<211> 516
<212> DNA
<213> Homo sapiens

<400> 673
aattcggcac gaggaacgag actgtgtctc aaaaaaatcc agaagcttta tcccaggtct 60
actggacttc ctagaacacc aagaaaggaa agggaattcg cctgtcatga tttagaatca 120
tgggggaata ttgtactacc caaataatga gtgacaaaaa ggtacctcct tgtttttaag 180
ccacaacttg aagcagttag caaggaggtc tattttggtg agaaagttgg tgggttccat 240
tttcaacatg tgattcaaat tacttaatac aggctgggac agggagaatg tgagcagctg 300
atattccagc tgagattagg ggtccatttg tagagatggt tccagaagac caaaactatg 360
gaaagaatga cagggtcaaa gtggaggagc tgccggggac atccagcagt cagagaattt 420
ctgaattgaa aacatggcca agcgcagtag ctcatccttg taatccccac actttgggag 480
accaaagcag aaggatccct tgaggccagg agttca                          516

<210> 674
<211> 516
<212> DNA
<213> Homo sapiens

<400> 674
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gaactttgtg gtcgtcatgg tgaccaagac caaagccggc cagggtacct cagcaccccc 120
agaggcctca cccacagctg ccccagagtc ctctacatcc ttcccgcctg ccccacctca 180
ggcatgtccc atcccccacc tgccgccaga gaggacaaga gcccatcaga ggaatccgcc 240
cccacgacgt ccccagagtc tgtgtcaggc tctgttccct cttcaggtag cagcgggcga 300
gaggaagacg cggcctccac gctagtgacg ggctctgagt atgagacgat gctgacggag 360
atcatgtcca tgggctatga gcgagagcgg gtcgtggccg cctgagagcc agctacaaca 420
acccccaccg agccgtggag tatctgctca cgggaattcc tgggagcccc gagccggaac 480
acggttctgt ccaggagagc caggtatcgg agcagc                          516

<210> 675
<211> 406
<212> DNA
<213> Homo sapiens

<400> 675
cctcgtgccg aattcggcac gaggatcagt ttaaaacagt gcctgggctc ccagccctcc 60
actcacttcc ctgttctctg catgggtgat actgagaggt tgggaggcat aggaaggggg 120
aagatcctag ggagtatatg tgagcattga ctatatgcag agggttttag tggtgctcgt 180
tagaaatgtt tggaggcgga tagaaaatat ttttagaaga gcatcctccc aatgttctct 240
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cctttttttc tggatggaag atgtttttgt gccagaaatc agattgatac ccaaagtgag 300
atttccagtt tactccacag gtcccctaat tttaagggat catcactctt gttcttttc 360
taatcagtta gtagtgctat tcctgatcac tgggaagtgc tgttgt 406

<210> 676
<211> 529
<212> DNA
<213> Homo sapiens

<400> 676
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tcaattagaa gaaagtgtag aagaggacgt gaagagttta aagaaagagt attcaaacga 120
aaaatgcagt tgtgaagaga atgcagtctc ttcacttgat tgtgtggcag taccttcaag 180
ccggtcaaat tcagccacag aacagcctgg ttcacttgca cagttcccag ggacttggga 240
tgggtcctgt ggaggagtcc tggtttgctc cttccctgga gcacccacaa gaagagaatg 300
agcccagcct gcagagtaaa ctccaagacg aagccactac catctttatg gcagccgcat 360
ggacaggcag acgaaacagc agcccagaca gaatgtggct tacaacagag aggaggaaag 420
gagacgcagg gtctcccatg acccttttgc acagcaaaga ccttacgaag aattttcaga 480
atacagaggg aaaaggcctg gttattccag tgcagccagt catggtaat 529

<210> 677
<211> 528
<212> DNA
<213> Homo sapiens

<400> 677
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acccagagat gacacagaga tgaatgagat gtggctcctg tcatcaagga gctcatgatt 120
caatggggaa ctaacactta gatgcatggg cagttaggga catgcaagaa tctttgtaat 180
gcaacaagag agaagttaca aggcagcacg gaagtcaatg ccggtgaacc cagatggcct 240
ggtgagagga gcctggacta gaaggaatta ctctcacttc caccaccccga tgtatggaaa 300
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caacaacggt ctgtccctga tgctgcgcgc aaagcagaat gacttcattc ccctgctgtc 420
cacagtgact ggggcccggg taatggtgca cggcaggat gaacctgcct ttatggatga 480
tggtggcttt aacttgcggc ctggcgtgga gacctccatc agcatgag 528

<210> 678
<211> 528
<212> DNA
<213> Homo sapiens

<400> 678
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acccacgtgc attttgggac aattgctttt taaaacgttt ttatgccaaa aatccttcat 120
tgtgattttc agaaccacgt cagatatacc aagtgactgt gtgtggggtt tgacaactgt 180
ggaaaggcga gcagaaaact ccggcggtct gaggccatgg aggtggttgc tgcatttgag 240
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caacttattt gtaagaagga tttttaaatt ttttatgggt agaattgtag tcaggaaaac 420
agaaagggct tgaaatttaa taagtgctgc tggaagggga ttttccaagc ctggaagggt 480
attcagcagc tgtggtgggg aaacatttct cctgaaagac tgaacgtg 528

<210> 679
<211> 309

<212> DNA
<213> Homo sapiens

<400> 679
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tcggccaggg ttctcgctct tgtcgtgtct gttcaaaccg gcacggtctg atccggaaat 120
atggcctcaa tatgtgccgc cagtgtttcc gtcagtacgc gaaggatatc ggtttcatta 180
agttggacta aatgctcttc cttcagagga ttatccgggg catctactca atgaaaaacc 240
atgataattc tttgtatata aaataaacat ttgaaaaaac ccttcaaaaa aaaaaaaaaa 300
aaactcgag 309

<210> 680
<211> 366
<212> DNA
<213> Homo sapiens

<400> 680
gaattcggca cgaggcgggc cgttatccat ttgtgttgtt cgccagctag gcctggcctc 60
gtcccgcttc gctcggtcgg tctcgcgcgc ccccatagcc ttgctagagg gttagcgtta 120
gccttaaagt gtgcgaatcc cgaaggaagc aagcgacaga actcgaagaa ccaccgcttc 180
ctttccttcg gggaaaggaa ggcgggcacc ctcgcgtttt gaaaggcccc gcccttgccg 240
ttttggaagg ccccgccctt gcgctttgcg ggccccgcct tgcgctttga aggccttgtc 300
ttgccgtttt gaaaatctca tttggggccg tggattgaag gaattttggg ggaaggtttt 360
tggggc 366

<210> 681
<211> 495
<212> DNA
<213> Homo sapiens

<400> 681
gaattcggca cgaggcgcgg agccggccgg gagaggctcg gacccccagg acctccagcc 60
tttagaccct ccggccctag gacccccgga acctgggacc cccgagaccc cagcactcgc 120
ggcgggggga tggtcatggg gacttctggg gcttgaagac cctgggtctg cgggaagccc 180
ctgctgagcg tccctcgcct accccgtggc cagtggcttt tcagtgcaga aaccacctta 240
tctatgtgac aaagctcggg ccatcagtgg caaggtagat tggcatcacg tacctttgat 300
acaacaacct gagaaggacg tcacttctgc gatattcctg ccaaaaatgc atctccgcat 360
tccgatcgtg agaacatcct gggcacaccc aaactgagag acaccataca aagtgactgg 420
tcagtgcact caaaggcaaa aagctcatgg aaggcaacag aagacaggag aagtgacagc 480
taaaagcagc gtgga 495

<210> 682
<211> 529
<212> DNA
<213> Homo sapiens

<400> 682
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aggggcccgg ccaagaagga ggcccgcctg ttacgatggt gtccatgagt ttcaagcgga 120
accgcagtga ccggttctac agcacccggt gctgcggctg ttgccatgtc cgcaccggga 180
cgatcatcct ggggacctgg tacatggtag taaacctatt gatggcaatt ttgctgactg 240
tggaagtgac tcatccaaac tccatgccag ctgtcaacat tcagtatgaa gtcatcggta 300
attactattc gtctgagaga atggctgata atgcctgtgt tctttttgcc gctctgttct 360
tatgtttata atcagttcaa tgctggttta tggagcaatt tcttatcaag tgggttggct 420

gattccattc ttctgttacc gactttttga cttcgtcctc agttgcctgg ttgctattag 480
ttctctcacc tatttgccaa gaatcaaaga atatctggat caactacct 529

<210> 683
<211> 527
<212> DNA
<213> Homo sapiens

<400> 683
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atttgaagtt gatgtggaaa ttgccaaaca atctgtgact attaagacca tgttggaaga 120
tttgggaatg gatgatgaag gagatgatga cccagttcct ctaccaaatg tgaatgcagc 180
aatattaaaa aaggtcattc agtggtgcac ccaccacaag gatgaccctc ctcctcctga 240
agatgatgag aacaaagaaa agcgaacaga tgatatccct gtttgggacc aagaattcct 300
gaagttgcca aggaacactt ttttgactca ttctggctgc aaactactta gacatcaaag 360
gtttgcttga tgtacatgca agactgttgc caatatgatc aaggggaaaa ctcctgagga 420
gattcgcaag accttcaata tcaaaaatga ctttctgaag aggaggaacc cagtcgcaaa 480
gagaccagtg ggtgaagaga agtgaatgtt gtgctgcact gtacctg 527

<210> 684
<211> 441
<212> DNA
<213> Homo sapiens

<400> 684
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agtaaggaac agcaaagtgg gagggctaca ccatcaccat ggcaacagaa agcctcaaaa 120
acataaagtc cctcgactta tgtcgggtag actcttccta gctcaggaga aacacatttt 180
aactggctga ggacaaggcc aggcagcctg gccacactgc ggaagggcag ctggacgcgc 240
ggcctctggt cagtcctgga agtgcttggt gagggcttcc agcagctcct gcttcttcag 300
cccactcttc agcccgtaag cccggcaggc ctctttcagc atgggcacag tgaacttgcc 360
cagcgtaccc ttgctgatgt gggtcttcag ctcctcttct gaatactcca ccttgggcct 420
tttgcttcca gaaccttcat t 441

<210> 685
<211> 490
<212> DNA
<213> Homo sapiens

<400> 685
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atggctatgc agcggccagg tccctatggt ggagggtatg gaggctatga tgactatggt 120
ggctataatg atggatatgg ctttgggtct gatagatttg gaagagacct caattactgt 180
ttttcaggaa tgtctgatca tagatacgga gatggtgggt ccagtttcca gagcaccaca 240
gggcactgtg tacacatgag ggggttacct tacagagcca ctgagaatga tatttataat 300
ttcttctcac ctcttaatcc catgagagta catattgaaa ttggacccga tggcagagtt 360
accggtgagg cagatgttga atttgctact catgaagatg ctgtggcagc tatggcaaaa 420
gacaaagcta atatgcacac agatatgtgg agctcttctt aaattctctg caggaacaag 480
tgggggtgct 490

<210> 686
<211> 618
<212> DNA
<213> Homo sapiens

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<400> 686
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aaaattgaaa agtacagaga ataatcggtg tctactgtaa caccaccaga tttaacaatg 120
ttaatgttac gccatatttg tttcaaatat ttttgtaata ttgaacatta tggatagagt 180
taaagcttgt ttgtatccat cccgttgttt acattctcca tcccctacat aggtaaccac 240
tattctgaag ttgatgtgta ttctttgtgt acatgctttt atacctttc tgcatatgta 300
tgtatccata aataatatgt agtctgttgt gtgtttttaa actttacaca gtggatgtcg 360
tactcttaca tgtattctgc agcttgcatt tttcacacat tcattttgaa tattcgttca 420
tgttaacaat gtagatctag ttttcttttt aaactctgta tagtattctt atgtatgaca 480
tacacttgtt gttatacatt tgaattattt ccaggtattc tttttgtgt gtggtatgta 540
aagtcacgat ggcagagatt tttgaaggaa gataaattat tttaggatta catttacagc 600
gcaggcccac ttcaaggt                                              618


<210> 687
<211> 410
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 396
<223> n = A,T,C or G

<400> 687
ggggatcaga ggctggtgag gttggccctg ttgcagcatc tgcgggcctt ctatggtatt 60
aaggtgaagg gtgtccgtgg gcagtgcgat cgcaggagac atgaaacagc agccacggaa 120
ataggggggta aaatatttgg agtacctttt aatgcactgc cccattctgc tgtaccagaa 180
tatggacaca ttccaagctt tcttgtcgat gcttgcacat ctttagaaga ccatattcat 240
accgaagggc tttttcggaa atcaggatct gtgattcgcc taaaacacta aagaataaag 300
tggatcatgg ggaaggttgc ctatctctgc acctccttgg gatattgcgg gacttcttaa 360
gcagtttttt agggactgcc agagcccatt ctcccnctga tttgcatgaa            410

<210> 688
<211> 412
<212> DNA
<213> Homo sapiens

<400> 688
ggccggtgca gcgggggggc ccgggggccc tggtggccct gggatgggga accgcggtgg 60
cttccgcgga ggtttcggca gtggcatccg gggccggggt cgcggccgtg gacggggccg 120
gggccgaggc cgcggagctc gcggaggcaa ggccgaggat aaggagtgga tgcccgtcac 180
caagttgggc cgcttggtca aggacatgaa gatcaagtcc ctggaggaga tctatctctt 240
ctccctgccc attaaggaat cagagatcat tgatttcttc ctgggggcct ctctcaagga 300
tgaggttttg aagattatgc cagtgcagaa gcagacccgt gccggccagc gcaccaggtt 360
caaggcattt gttgctatcg gggactacaa tggccacgtc ggtctgggtg tt         412

<210> 689
<211> 412
<212> DNA
<213> Homo sapiens

<400> 689
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gccttgctaa cgctgccgtc ggggaggatt gatgtccctt cagcatcatg cagcccgccg 60
ccgaggaagg tgaaagttac acaagaactg aaaaacattc aagttgagca gatgacaaaa 120
cttcaagcca aacatcaagc agaatgtgat ttgcttgaag atatgaggac attcagtcag 180
aagaaggctg ctattgaaag agagtatgca cagggtatgc agaagttggc tagtcaatac 240
ctgaagagag attggcctgg agtaaaagct gatgatcgga atgattacag gagcatgtat 300
cccgtttgga aatcttttct cgagggaaca atgcaggtag cccagtctcg gatgaatata 360
tgtgaaaact ataaaaactt catttctgac ctgcaaggac agtgagaagc tt         412

<210> 690
<211> 412
<212> DNA
<213> Homo sapiens

<400> 690
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cgcagagccg caagctggtg gaagcgctgt gcgccgcggg ccaccgcgcc gaactgctcc 120
ggttcccgga aagatcaact gaaatcggca aacttctgag ttcctacttg caaaagaaaa 180
gtgacgtgga ggatcactcg gtgcacctgc ttttttctgc aaatcgctgg gaacaagtgc 240
cgttaattaa ggaaaagttg agccagggcg tgaccctcgt cgtggacaga tacgcatttt 300
ctggtgtggc cttcaccggt gccaaggaga atttttccct agactggtgt aaacagccag 360
acgtgggcct tcccaaaccc gacctggtcc tgttcctcca gttacagctg gc         412

<210> 691
<211> 412
<212> DNA
<213> Homo sapiens

<400> 691
ggttttcatc cttgaaaaac agtaagaaat atgctcccac cgaggcacag ttgaatgctg 60
ttgatgcttt gattgactcc atgagcttgg caaagaaaga tgagaagaca gacacccttg 120
aagacttgtt tccaaccacc aaaatcccaa atcctcgatt tcagagatta tttcagtgtc 180
tgctgcacag agctttacat ccccgggagc ctctaccccc aattcagcag catatttgga 240
atatgctgaa tcctcccgct gaggtgacaa cgaaaagtca gattcctctc tctaaaataa 300
agaccctttt tcctctgatt gaagccaaga aaaaggatca agtgactgct caggaaattt 360
tccaagacaa ccatgaagat ggacctacag ctaaaaaatt aaaaactgag ca         412

<210> 692
<211> 412
<212> DNA
<213> Homo sapiens

<400> 692
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ctggtaagac catcaccctc gaggttgagc ccagtgacac catcgagaat gtcaaggcaa 120
agatccaaga taaggaaggc atccctcctg accagcagag gctgatcttt gctggaaaac 180
agctggaaga tgggcgcacc ctgtctgact acaacatcca gaaagagtcc accctgcacc 240
tggtgctccg tctcagaggt gggatgcaaa tcttcgtgaa gacactcact ggcaagacca 300
tcacccttga ggtggagccc agtgacacca tcgagaacgt caaagcaaag atccaggaca 360
aggaaggcat tcctcctgac cagcagaggt tgatctttgc cggaaagcag ct         412

<210> 693
<211> 413
<212> DNA
<213> Homo sapiens
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<400> 693
ggtgaatggt agtgttgcca ccctgtgctg aggcctgagg cctcttcctc agctttatct 60
ccctttcctt cactcaaggg ccatttcccc agtccctatc tcccccatcc cctcccggct 120
tataggcccc acaggtgcta tttgttgtgc tggcccaggc gtggggctac caagcaaagg 180
cttggcatat accaaaggcc aagctgcatg cccattaatc tgggcttttt tcttttgcgg 240
gtcaatgtgg gttttaatgc tgaatcaaat gtttaacttt tccaagactt gggggaatct 300
gaagttccca tctacacttc tacccacttt tcctgcccaa cctaaacctt cgtttaagta 360
attggaaggg actggttccc ttccttttgt tggaagggaa ccaggaagga aag        413

<210> 694
<211> 441
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 100,138,202,203,211,237,287
<223> n = A,T,C or G

<400> 694
actagtggat ccaaagagag agagagagag agagagagag agagagagag agagagagag 60
agagagagag agagaggcgc ccgaggcgcg gaggggctgn ctgggcagga ggggttggcg 120
gggcagcagg gccgcggnca tggggagctt gaaggaggag ctgctcaaag ccatctggca 180
cgccttcacc gcactcgacc annaccacag nggcgaggtc tccaagtccc agctcanggt 240
cctttcccat aacctgtgca cggtgctgaa ggttcctcgt gacccanttg cccttgaaga 300
gcacttcagg gatgatgatg agggtccagt gtccaaccag ggctacatgc cttatttaaa 360
caggttcatt ttggaaaagg tccaagacaa ctttgacaag attgaattca ataggatgtg 420
ttgggaccct ctgtgtcaaa a                                           441

<210> 695
<211> 413
<212> DNA
<213> Homo sapiens

<400> 695
gctcgtctcc cgcggcccag cgctcgcacc accgcttctc cctccctgtc gcagccgcgc 60
cgccgcgcag cgccccagcc acacgccggc gggcagaagc cgcccgctct ccggaaagtg 120
ataacagaat tcattgaagt ggagaatttt taaagaaggt aacaaaaaga gaaagaaaat 180
gccgaaacca atcaacgtaa gagtaactac aatggatgct gagctggaat ttgccattca 240
gcccaataca actggcaaac aactttttga ccaggtggtg aaaacagttg gtttgcgtga 300
ggtctggttt tttgggctgc agtatgtaga cagcaaaggt tattctacat ggcttaaact 360
aaataaaaag gtaacacagc aggatgttaa aaaagagaat cctttacagt tca        413

<210> 696
<211> 399
<212> DNA
<213> Homo sapiens

<400> 696
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tgctgggccg gaaggtggtg gtcgtacgct gtgaaggcat caacatttct ggcaatttct 120
acagaaacaa gttgaagtac ctggctttcc tccgcaagcg gatgaacacc aacccttccc 180
gaggccccta ccacttccgg gcccccagcc gcatcttctg gcggaccgtg cgaggtatgc 240
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tgccccacaa aaccaagcga ggccaggccg ctctggaccg tctcaaggtg tttgacggca 300
tcccaccgcc ctacgacaag aaaaagcgga tggtggttcc tgctgccctc aaggtcgtgc 360
gtctgaagcc tacaagaaag tttgcctatc tggggcgcc 399

<210> 697
<211> 398
<212> DNA
<213> Homo sapiens

<400> 697
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<210> 698
<211> 396
<212> DNA
<213> Homo sapiens

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<210> 699
<211> 398
<212> DNA
<213> Homo sapiens

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ggaatgtttt gagacactcc gaggagatga acggatcc 398

<210> 700
<211> 399
<212> DNA
<213> Homo sapiens

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cggatgaccc ctatgagaaa gcttgccaga agatgatct 399

<210> 701
<211> 399
<212> DNA
<213> Homo sapiens

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gggcacgtca gcaagaggga gaaagccgtc ttaatttgg 399

<210> 702
<211> 398
<212> DNA
<213> Homo sapiens

<400> 702
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tggagtttgc aaaagaatta cagaggagtt tcatggcact aagtcaagat attcagaaaa 360
caataaagaa gacagcacgt cgggagcagc ttatgaga 398

<210> 703
<211> 403
<212> DNA
<213> Homo sapiens

<400> 703
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agaagaacag gccatgaaag ctgaacgttt aaaccgacga agattcctag ggacagaggt 180
gttattaaga cttatatctg aggcacaaat acaggagttt ggtgtaaatt tttctgtgat 240
gtccagtgaa aaaatgcaag ctcgctcaca gtcacgtgag cgaggtgacc attcccattt 300
atttgactca aaagacccac caatatactc agttggtgct tttgaaaact ttagacatca 360
gctagaggac ttgaggcaac tggataactt caagcatccc cag 403

<210> 704
<211> 411
<212> DNA
<213> Homo sapiens

<400> 704

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aaacagacca ggcacagaaa gctgaaggtg ctggagatgc caagtgaagt gtgtgcattt 360
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<210> 705
<211> 203
<212> DNA
<213> Homo sapiens

<400> 705
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gcgccccagc ctcccctgcc tgcagctccc cacccagctc tgagttcatg gatgttaatt 180
gagagccctg ggtcctgcca cag 203

<210> 706
<211> 402
<212> DNA
<213> Homo sapiens

<400> 706
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acagctggac tacacaggct gaagctctct ctgccgagat atagatattt ccctggtgat 180
gatctttcaa gctgacatga agacatggcc acccactgga acgtcgtgtg tctgccgtgg 240
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cctttgagca ggaagaagac acggaacaca ttcctgttag ct 402

<210> 707
<211> 411
<212> DNA
<213> Homo sapiens

<400> 707
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actcttaagg aaaaactcat tgcaccagtt gcggaagaag aggcaacagt tccaaacaat 120
aagatcactg tagtgggtgt tggacaagtt ggtatggcgt gtgctatcag cattctggga 180
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gaaggggaga gtcggctcaa tctggtgcag agaaatgtta atgtcttcaa a 411

<210> 708
<211> 418
<212> DNA
<213> Homo sapiens

<400> 708
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aggccgctgg gggactgcgg gcagagctgc tgcgggccca gcgggagctt ggggagctga 120
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gtctggctga ggtgcagcga gaagcacaga gcactgcccg ggagctggag gtgatgac 418

<210> 709
<211> 422
<212> DNA
<213> Homo sapiens

<400> 709
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ataagtactg aaatgattag aactaaaatt gctcatagga aatcactgtc tcagaaagaa 180
aatagacata aggaatacga acgaaataga cactttggtt tgaaagatgt aaacattcca 240
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aagaccaatg ttaagccaag ggcaatgaaa actattctag gtgatcaacg aaaacagatg 360
ctccaaaaat acaaagaaga aaagcaactt caaaaattga aagagcagag agagaaagct 420
aa 422

<210> 710
<211> 424
<212> DNA
<213> Homo sapiens

<400> 710
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cctggagggg cgaagaggac gagggggcca aggcttcctc cggggacatt ggctccctgg 180
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aagaagaatg gcaagatgaa gattttccga tacctttacc agaagatgat agtattgaag 300
cagatatact agctataact ggaccagagg accagcctgg ctcactagaa gttaatggaa 360
ataaagtgag aaagaaacta atggctccag acattagcct gacactggat cctagtgatg 420
gctc 424

<210> 711
<211> 425
<212> DNA
<213> Homo sapiens

<400> 711
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cgcggtgcat tctgggcccc gaggtcgagc ccgccgctgc cgccgtcgcc tgagggaagc 120
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acaatgcagc ctgcttctgc aaagtggtac gatcgaaggg actatgtctt cattgaattt 300
tgtgttgaag acagtaagga tgttaatgta aattttgaaa aatccaaact tacattcagt 360
tgtctcggag gaagtgataa ttttaagcat ttaaatgaaa ttgatctttt tcactgtatt 420
gatcc 425

<210> 712
<211> 425

<212> DNA
<213> Homo sapiens

<400> 712
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agctgattga tgtcaaccac tatgccaagg atgaagtggc agctcgtatg aatgaggtga 240
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ccaaccagca acagcaattt aatcgcaatg ttgaggatat tgaattgtgg ctatatgaag 360
tagaaggtca cttggcttcg gatgattacg gcaaagatct taccaatgtg cagaacctcc 420
agaag 425

<210> 713
<211> 423
<212> DNA
<213> Homo sapiens

<400> 713
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gcgcaggccg ccgcgcgagt gaatcgaggc ggcgggccca tccggaaccg gccggccatc 180
gcccgcggcg cggccggcgg aggcggcagg aaccgaccgg cgccctacag caggccaaaa 240
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gtggagacag gtgggaaact gctggtgtcc aatctggatt ttggagtctc agacgccgat 360
attcaggaac tctttgctga atttggaacg ctgaataagg cggctgtgca ctatgatcgc 420
tct 423

<210> 714
<211> 425
<212> DNA
<213> Homo sapiens

<400> 714
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tgctactcag gaagaattga aaaaggctta taggaaactg gccttgaagt accatcctga 120
taagaaccca aatgaaggag agaagtttaa acagatttct caagcttacg aagttctctc 180
tgatgcaaag aaaagggaat tatatgacaa aggaggagaa caggcaatta aagagggtgg 240
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aaggatgcag agagaaagga gaggtaaaaa tgttgtacat cagctctcag taaccctaga 360
agacttatat aatggtgcaa caagaaaact ggctctgcaa aagaatgtga tttgtgacaa 420
atgtg 425

<210> 715
<211> 423
<212> DNA
<213> Homo sapiens

<400> 715
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acctccggcc tagccatgtg atttcacttc cactccataa cgctcctcat actaggccta 120
ctaaccaaca cactaaccat ataccaatga tggcgcgatg taacacgaga aagcacatac 180
caaggccacc acacaccacc tgtccaaaaa ggccttcgat acgggataat cctatttatt 240
acctcagaag tttttttctt cgcaggattt ttctgagcct tttaccactc cagcctagcc 300

cctaccccccc aattaggagg gcactggccc ccaacaggca tcaccccgct aaatccccta 360
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cac 423

<210> 716
<211> 424
<212> DNA
<213> Homo sapiens

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gataaaccca gcgccaccat ccacgccagc cgcaccatgc cgctcctaag cctgcacagc 180
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gaatgtaaca gaggaactaa cgtccaacga caagacgagg attctcaacg tcagtccagg 420
ctca 424

<210> 717
<211> 424
<212> DNA
<213> Homo sapiens

<400> 717
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atcaagaaaa tctccatcga agggaacatc gctgcaggga agtcaacatt tgtgaatatc 360
cttaaacaat tgtgtgaaga ttgggaagtg gttcctgaac ctgttgccag atggtgcaat 420
gttc 424

<210> 718
<211> 425
<212> DNA
<213> Homo sapiens

<400> 718
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ctcccggctt gggtggcgcg gccgtgccct cgttttggcc tccgaacgcg gctcgaatgg 120
caagccaaaa ttccttccgg atagaatatg atacctttgg tgaactaaag gtgccaaatg 180
ataagtatta tggcgcccag accgtgagat ctacgatgaa ctttaagatt ggaggtgtga 240
cagaacgcat gccaacccca gttattaaag cttttggcat cttgaagcga gcggccgctg 300
aagtaaacca ggattatggt cttgatccaa agattgctaa tgcaataatg aaggcagcag 360
atgaggtagc tgaaggtaaa ttaaatgatc attttcctct cgtggtatgg cagactggat 420
cagga 425

<210> 719
<211> 413
<212> DNA
<213> Homo sapiens

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tggacggttc ggccaccatc ccatttgatc aggtcaacga tgactattgc gactgcaaag 120
atggctctga cgagccaggc acggctgcct gtcctaatgg cagcttccac tgcaccaaca 180
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gccgtaagga gagagagtcc ctgcagcaga tggccgaggt cacccgcgaa gggttccgtc 360
tgaagaagat ccttattgag gactggaaga aggcacggga ggagaaacag aaa        413

<210> 720
<211> 414
<212> DNA
<213> Homo sapiens

<400> 720
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aggccagcag gggctctgtt ccttcaggtt ccaagatgga caggagggcg ccagtacctc 180
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cagccccacc caccgaggaa gacatctggt ttgacgacgt ggacccagcg gatatcgaag 360
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<210> 721
<211> 414
<212> DNA
<213> Homo sapiens

<400> 721
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cccagccgag cgggccatgg ccaccgccat tcagaacccg ctcaagtcgc gaggacttct 120
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<210> 722
<211> 412
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 262,396
<223> n = A,T,C or G

<400> 722
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tgggattgct ggatcatatg gagctttatt tttagntttt tgaggacctc ca 412

<210> 723
<211> 451
<212> DNA
<213> Homo sapiens

<400> 723
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caagcagcaa caatggcaaa cgtgcatctg ccagtggcca gcagccagct gcatcccgtt 180
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tccaaccaga tctcagtcat agtggattgg cagatcatta tgaaaattcc cactggggac 420
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<210> 724
<211> 425
<212> DNA
<213> Homo sapiens

<400> 724
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aaggaagcag tgaccttcaa ggacgtggct gtggccttca cggaggagga attggggctg 180
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aagttaatta ctgttcaaga cagagaatca gaagaagagc tttcttgttg gcaaatctgg 420
caaca 425

<210> 725
<211> 421
<212> DNA
<213> Homo sapiens

<400> 725
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g 421

<210> 726
<211> 413
<212> DNA
<213> Homo sapiens

<400> 726
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<212> DNA
<213> Homo sapiens

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<210> 728
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<213> Homo sapiens

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<212> DNA
<213> Homo sapiens

<400> 729

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<212> DNA
<213> Homo sapiens

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<212> DNA
<213> Homo sapiens
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<212> DNA
<213> Homo sapiens

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Leu Ser
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Val Gln Asn Ala Ile Leu Gln Ala Val Gln Gln Val Ser Gln Glu Ser
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            20                  25                  30
Gly Val Leu Asn Glu Cys Cys Phe Ala Thr Arg Leu Cys Ile Cys Ile
        35                  40                  45
Arg Thr Leu Leu Thr Phe Pro Ile His Thr Leu Asn Phe Phe Phe Glu
    50                  55                  60
Ile Met Lys Ile Ile Gln Val Arg Asn Thr
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